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REMR Management Systems — Riverine Dike and Revetment Condition Index Software (DIKE_CI) User's Manual

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Preface

This study was authorized by Headquarters, U.S. Army Corps of Engineers (HQUSACE), as part of the Operations Management Problem Area of the Repair, Evaluation, Maintenance, and Rehabilitation (REMR) Research Program. The work was performed under Civil Works Research Work Unit 32674, "Implementation of REMR Management Systems." Mr. David T. McKay, U.S. Army Construction Engineering Research Laboratories (USACERL), is the Principal Investigator, and Mr. Harold C. Tohlen (CECW-O) is the REMR Technical Monitor for this work.

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COL James A. Walter is Commander of USACERL, and Dr. Michael J. O'Connor is Director.

Conversion Factors, Non-SI to SI Units of Measurement

Non-SI units of measurement used in this report can be converted to SI (metric) units as follows:

<u>Multiply</u>	<u>By</u>	<u>To Obtain</u>
feet	0.3048	meters
inches	0.0254	meters
square ft	0.0929	square meters
mils	25.4	microns

1 Introduction

Program Background and Description

This is the initial version of DIKE_CI, the REMR (Repair, Evaluation, Maintenance, and Rehabilitation) management system computer program for riverine navigation training structures. It was developed as part of the REMR research program sponsored and guided by the Civil Works Construction Operations and Readiness Division of the U. S. Army Corps of Engineers. This DOS-based version handles basic structural information, inspection information (including estimated Condition Index [CI] value), and report generation for stone dikes and revetments. DIKE_CI is available via the World Wide Web at:

<http://owwww.cecer.army.mil/fl/remr/remr.html>

DIKE_CI Program's Major Components

There are four components to the DIKE_CI Program.

Inventory Data

Inventory data is the set of data that describes the location, dimensions, and general construction characteristics of each structure. Inventory data defines the basic structure within the program so that all inspection information (including estimated CI) and maintenance and repair data can be related to it properly. Details of the inventory data are in Chapter 3.

Inspection Data

Inspection data describes the physical condition (estimated CI and Repair Priority Index [RPI] value) of the structure at the time of the inspection as well as who performed the inspection, text comments, maintenance and repair cost analysis, and other relevant data. Details of the inspection data are in Chapter 4.

Reports and Forms

The reports and forms option allows the user to generate various reports detailing or summarizing structure inventory, past inspections, or maintenance and repair (M&R) cost analyses. Blank inspection forms or forms with available data filled in are also available. Details of reports and forms are available in Chapter 5.

System Management

Several options are available under the heading: System Management. The user can select a different division or district of data to enter, access, or modify. System defaults and M&R cost analysis default values may be entered. Data can

be copied to and from other disk drives. Details of these options are available in Chapter 6.

General Program Operation and Arrangement

Option Selection

DIKE_CI is menu driven; most operations are initiated by choosing a selection from a menu (or list) of options. To select an option from a menu, highlight the desired option using the arrow keys, then press the key labelled [RETURN] or [ENTER]. If a menu option has a number or letter displayed in a different color from the rest of the line, the option can also be selected by pressing the indicated letter or number on the keyboard.

Data Entry

Data entry is handled in two ways:

- 1) A Pop-up Menu system, where the appropriate data may be selected as indicated above. Reselecting a different item at a later time changes the entered data to the new value.
- 2) Typing in the information, where the size of the box indicates the maximum number of characters that can be entered. Some fields such as dates, numbers and dollar values may have punctuation already entered.

The Main Menu

The program begins with the Main Menu that provides the following options:

- Dike & Revetment Data Entry
- Database Related Reports
- System Management

Dike & Revetment Data Entry

This option is used for all data entry, inventory, and inspection. It allows the user to define the structure and enter inspection data, and M&R cost analysis data. Data can be modified or deleted.

Database Related Reports

This option is used to generate reports and forms. Reports provide organized formats for viewing or printing inventory, inspection data, or M&R cost data. Forms provide field inspection sheets with blanks that are to be filled in by the inspection team, or sheets with available data already filled in the blanks.

System Management

This option allows the user to select different divisions or districts, to set default values, and to import and export data to other disk drives.

Program and Manual Conventions

Manual Convention

The following convention is used (or assumed) throughout the manual:

Most entries must be followed by a carriage return **[RETURN]** (the **ENTER** key). This will not always be shown in the manual.

Program Conventions

The following conventions are used with **DIKE_CI**:

- 1) Available keys and their functions are usually noted at the bottom of the screen or information box.
- 2) Incomplete data sets must have the required fields entered to be stored.
- 3) **Ctrl-ENTER** stores entered data and makes modifications permanent.
- 4) A three or four character screen label is located in the upper right hand corner of the top box on each screen. For example the Main Menu page has a label of MM1.
- 5) A phrase indicating the current option is displayed in the upper left corner of the top box on each screen. For example, the Main Menu page has the phrase Main Menu.

Program Operation Keys: Functions and Conventions

Data Field Cursor Keys

ENTER	moves the cursor to the next field.
TAB	moves the cursor to the next field.
SHIFT-TAB	moves the cursor to the previous field.
RIGHT ARROW	moves to the next field when cursor is at the end of a field.
LEFT ARROW	moves to the previous field when cursor is at start of a field.
PGUP	moves the cursor to the first field on a form:
PGDN	moves the cursor to the last field on a form.
UP ARROW	moves the cursor to the field above the current field.

DOWN ARROW	moves the cursor to the field below the current field.
------------	--

Data Field Edit Keys

LEFT ARROW	moves the cursor 1 position left within a field.
RIGHT ARROW	moves the cursor 1 position right within a field.
Ctrl-LEFT ARROW	moves the cursor to the beginning of a field.
Ctrl-RIGHT ARROW	moves the cursor to the end of data entered in a field.
HOME	moves the cursor to the beginning of a field.
END	moves the cursor to the end of data entered in a field.
BACKSPACE	deletes the character to the left of the cursor.
INS	toggles between overtyping and character insertion.
DEL	deletes the character currently at the cursor.
Ctrl-ENTER	stores the contents of the current data form.
ESC	exits a data form without storing changes.

List & Menu Keys

ENTER	selects the currently highlighted item.
UP ARROW	moves selection bar up in menus and selection lists.
DOWN ARROW	moves selection bar down in menus and selection lists.
PGUP	moves up 1 page of items in a list.
PGDN	moves down 1 page of items in a list.
HOME	moves to the beginning of a selection list or menu.
END	moves to the end of a selection list or menu.
INS	if available, may be used to create a new data record.
DEL	if available, may be used to delete a data record.
Ctrl-ENTER	in multiple choice lists it toggles the selection mark of all items in the list.
ESC	in lists it exits the current list; in menus it returns to the previous menu.

Other Keys

F1	display system help function.
----	-------------------------------

In selection lists you can press one or more letters or numbers and the selection bar will move to the first entry that starts with that character(s). If you are past the indicated entry, it may take two of the initial characters to cause the highlighted bar to move in the list.

In the Report section the SPACE-BAR can be used to toggle the selection of waterways or structures. A checkmark to the left of an item indicates that it is selected. Ctrl-ENTER toggles all entries in these lists.

Using a Mouse in DIKE_CI

The RIGHT Mouse Button acts like the ESC key. It causes exits from menus to the previous menu; exits from selection lists; exits from data forms without storing changes, etc.

The LEFT Mouse Button acts like ENTER in menus and lists. In data forms it causes the cursor to move to the current Mouse Cursor position. (If not specified, MOUSE-CLICK or CLICK refers to the LEFT Mouse Button throughout the report.)

When INS, DEL, ENTER, ESC, Ctrl-ENTER, YES or NO occur on the lower edge of a window you can position the Mouse Cursor at one of those labels and press the LEFT Button. This will act like the appropriate key was pressed.

Some selection lists require two LEFT Mouse Button presses to select an item. One click moves the highlight bar and the second click acts like an ENTER keypress.

Some selection windows have a vertical bar at the right edge. Positioning the Mouse Cursor along this bar and pressing the LEFT Mouse Button causes the list to scroll in the window proportionately. A marker on the bar indicated the relative position in the selection list.

2 Program Installation and Setup

This chapter will explain the steps required prior to entering data into DIKE_CI. The following topics will be covered.

- Hardware Requirements
- Computer Configuration
- Installing DIKE_CI
- Starting DIKE_CI
- DIKE_CI Setup Options
- Program Configuration

Hardware Requirements

DIKE_CI was developed for operation on an IBM™ (International Business Machines) compatible personal computer (PC) that runs at least MS-DOS 3.3™ (Microsoft Corporation, Redmond, WA). The program will run in the DOS mode on most PC configurations under Windows 3.1 and Windows 95.

A hard disk drive is required with a recommended 20 megabytes of available space. One megabyte of extended memory is required to run this version of the program. 640K RAM memory is also required. If the computer has memory-resident utilities such as Sidekick or PC Tools loaded into memory, they may need to be unloaded before DIKE_CI can be run.

If DIKE_CI is to be run on a slow PC, a system for disk cacheing is highly recommended. There are many utilities, shareware and otherwise, available that can improve disk performance substantially. No cacheing system is guaranteed to work with this program other than SMARTDRIVE™ (Microsoft Corporation).

Computer Configuration

A file named CONFIG.SYS must be present in the root directory of the disk drive of the PC with the following commands for this program to run properly.

```
BUFFERS=30  
FILES=30
```

Check for the existence of the file by typing **TYPE C:\CONFIG.SYS** at the DOS prompt. If the file exists, its contents will be displayed on the screen. If the file does not exist, consult a DOS manual on how to create a CONFIG.SYS file.

To ensure that the PC has at least 640K of available RAM memory, type the command CHKDSK at the DOS prompt to receive a disk and memory status report. Check the last two lines displayed on the screen. They should read:

```
# BYTES TOTAL MEMORY
# BYTES FREE
```

The number of bytes total memory should be at or near 640K. The number of bytes free should be near 545K or greater. If it is not, check for the presence of a memory resident utility. For further explanation concerning CONFIG.SYS, BUFFERS, and FILES commands, consult a DOS manual.

Installing DIKE_CI

When you receive DIKE_CI, it will be stored on floppy disk. All the files will be copied onto the local hard drive when the program is installed. A summary of the install procedure follows (while in DOS):

1. Insert the floppy disk labelled **Disk 1 of 2** into the PC's A: drive.
2. Type **A:** at the DOS prompt and press **ENTER** to change to drive A:.
3. Type **install** at the DOS prompt, press **ENTER**, and follow the instructions displayed on the screen.

When the install process is complete DIKE_CI is on your local hard drive in a directory called **DIKE_CI**.

Starting DIKE_CI

When you are ready to access DIKE_CI, you must be in the **DIKE_CI** subdirectory.

1. To access the DIKE_CI subdirectory, type the following at the DOS prompt:

```
CD DIKE_CI
```

If you elect to install DIKE_CI under additional subdirectories, the above will need to be modified. For example, if you installed DIKE_CI under an APPS subdirectory the above command would be **CD \APPS\DIKE_CI**.

2. Type the command **DIKE_CI** at the DOS prompt.

The first DIKE_CI screen will now appear.

DIKE_CI Setup Options

The first time DIKE_CI is run the program asks the user to select a division or district. After a division or district is selected the choice is stored and the user does not need to select the division or district unless a different division or district is desired.

Please select a Division from the next display. -- Press any key

Select a division or district from the list presented. Several pages of alternatives are available. Move the highlight bar to the Division/District desired using the arrow keys or the mouse and press **ENTER** or click the mouse to choose that selection.

=====USACE Divisions/Districts=====			
DIV	DIST	DIVISION NAME	DISTRICT NAME
LMV		Lower Mississippi Valley	
LMV	LMK	Lower Mississippi Valley	Vicksburg
LMV	LMM	Lower Mississippi Valley	Memphis
LMV	LMN	Lower Mississippi Valley	New Orleans
LMV	LMS	Lower Mississippi Valley	St. Louis
MRD		Missouri River Division	
MRD	MRK	Missouri River Division	Kansas City
MRD	MRO	Missouri River Division	Omaha
NAD		North Atlantic Division	
NAD	NAB	North Atlantic Division	Baltimore
NAD	NAN	North Atlantic Division	New York
NAD	NAO	North Atlantic Division	Norfolk
Ins	Del		

Enter ESC

After a Division or District is selected two title pages are displayed. Then the Main Menu page is presented.

MAIN	Division: Southwestern Division	MM1
MENU	District: Little Rock	
Press ESC or Click Right Mouse Button to Exit - F1 HELP		

===== Main Menu =====
Dike & Revetment Data Entry
 Database Related Reports
 System Management

Use arrow keys to position; ENTER to enter/modify Data; ESC to Exit

All program options can be accessed through the Main Menu page.

Program Configuration

MANAGE	Division: Southwestern Division	SM1
SYSTEM	District: Little Rock	
MENU		F1 - HELP

```
===== System Management Menu =====
Select or Reselect District
Edit Maintenance & Repair Cost Data Defaults
Edit System Default Values
Copy Data to Diskette
Get Data From Diskette
=====
```

Use arrow keys to position; ENTER to Edit System Default Values; ESC to Exit

Select the System Management Menu from the Main Menu to display the menu options shown above. From these options you can choose the Edit System Default Values option.

```
=====Enter System Information=====
Application Name:  DIKE_CI
Application Title:

Division Name:    SWD Southwestern Division
District Name:    SWL Little Rock

Text Editor:  EDIT

The Editor is used to enter REMARKS. The default is assumed to be the
DOS EDIT program (Version 3.0 or later). Any ASCII Text Editor (not
a wordprocessor) can be used. To use a different Text Editor, enter
the path and name of the Editor (such as C:\MyApps\MyEdit) above.

Printer Port:  LPT1

Press Ctrl-ENTER to Store.

=====ESC Ctl-Enter=====
```

Use arrow keys to position; Ctrl-ENTER to store; ESC to Exit

The Text Editor and the Printer Port can be set on this page.

• Text Editor

The Text Editor is a program that is used by DIKE_CI to enter text comments or remarks. This program is assumed to be the DOS EDIT program (Version 3.0 or later). Any ASCII Text Editor (not a word processor) that takes a filename as a parameter on the command line can be used for this purpose. To use a different Text Editor to enter remarks in DIKE_CI, type the full path and name of the Editor program in the Text Editor data field. If desired, the Text Editor can be changed at any time by selecting the System Management Menu and the Edit System Default Values option and entering a new value for the Text Editor data field.

- **Printer Port**

The Printer Port is a communications channel in your PC that is connected to a printer. Typically this is a port labelled LPT1 (Line Printer 1). A pop-up menu with the choices LPT1, LPT2, LPT3, COM1, COM2, COM3, COM4 is displayed at the Printer Port data field. Select the appropriate port for your printer by moving the highlight bar with the arrow keys or the mouse and pressing ENTER or clicking the mouse. If necessary the Printer port may be changed at any time by selecting the System Management Menu and the Edit System Default Values option and reselecting one of the above ports.

Remember to press **Ctrl-ENTER** to store any changes you make.

3 Inventory

This chapter will discuss how data defining a dike or revetment structure is entered, modified, or deleted. If data about the structure being inspected has not been entered or stored in the system previously, this must be done before any inspection data can be entered into the system.

Adding a Structure

To add a Structure:

Select **Dike & Revetment Data Entry**, option 1 from the Main Menu. The following screen will appear showing the Data Entry/Modification Menu.

EDIT MENU	Division: Southwestern Division District: Little Rock	EM1 F1 - HELP
--------------	--	----------------------

==== Data Entry/Modification Menu =====

Enter/Modify Inspection Data

Enter/Modify Inspection Team

Enter/Modify Structure Information

Enter/Modify Maintenance & Repair Data

Change an Inspection Date

Add/Edit River/Waterway

Use arrow keys to position; ENTER to enter/edit Structure Info; ESC to Exit

Select **Enter/Modify Structure Information**, option 3. The **Select Waterway** screen will be displayed. This is a list of available rivers and waterways which are found in the current Division/District. Although the list is comprehensive and should contain any river or waterway the user needs to select, the list can be added to and modified by using **Add/Edit River/Waterway**, option 6 on the Data Entry/Modification Menu. This option will be discussed later in this chapter.

To select a river or waterway use the arrow keys or the mouse to move the highlight bar to the desired river/waterway in the list. Press **ENTER** or click the mouse button to confirm the selection.

EDIT STRUC	Division: Southwestern Division	ED20
DATA	District: Little Rock	
Select		
Waterway		F1 - HELP

Select a listed
RIVER/WATERWAY
to edit/enter
STRUCTURE data.

Rivers/Waterways	
ARKANSAS RIVER, DARDANELLE	
ARKANSAS RIVER, MORGAN POINT	
ARKANSAS RIVER, OZARK	
ARKANSAS RIVER, POOL 02	
ARKANSAS RIVER, POOL 03	
ARKANSAS RIVER, POOL 04	
ARKANSAS RIVER, POOL 05	
ARKANSAS RIVER, POOL 06	
ARKANSAS RIVER, POOL 07	
ARKANSAS RIVER, POOL 08	
ARKANSAS RIVER, POOL 09	
ARKANSAS RIVER, POOL 13	
ARKANSAS RIVER, WREC	
BLACK RIVER	

Enter ESC

Use arrow keys or mouse to position; ENTER to select

After the river/waterway has been selected, the Select Structure screen is displayed.

EDIT STRUC	Division: Southwestern Division	ED21
DATA	District: Little Rock	
Select	Waterway: ARKANSAS RIVER, DARDANELLE	
Structure		F1 - HELP

Select a listed
STRUCTURE to edit
previously entered
data.

Press INS
to create a new
STRUCTURE entry.

DEL can be used
to delete all
data for a given
STRUCTURE.

Defined Structures	
Structure ID	Standard ID
D282.3R	DIK229.65R
D283.6R	DIK230.50R
R286.8L	REV234.00L
D286.3R	DIK234.00R
D286.6R	DIK234.40R
D286.0L	DIK234.75L
D286.3L	DIK234.90L
D287.2R	DIK235.10R
R287.3L	REV235.12L
D287.9R	DIK235.80R
R287.9R	REV235.81R
D288.4R	DIK236.30R

Ins Del ===== Enter ESC

Use arrow keys to position; ENTER to select; ESC to Exit

To add a structure press the **INS** key as indicated on this screen. The **Edit Structure Data** screen will be displayed next. (Note that for the purposes of this manual, the labels appearing in bold type represent fields that are editable from the **Edit Structure Data** screen.)

```

=====Edit Structure Data=====
Structure ID:                               Last Condition Index:      EDST
Standard ID:                               Last Repair Priority Index:
County:                                     State:
River/Waterway:  ARKANSAS RIVER, DARDANELLE
Levee Dist.:                                     Land Owner:
Reach:                                     Gauge Name:      Gauge Reading:
Navigation Mile:    0.00   To    0.00   (if revetment)      ft(CRP)
Structure Type:  Revetment      Bank:  Right
Purpose:  Bank Stabilization      Construction:  Stone
Overall Design Length:      (ft)   Average Crown Width:      (ft)
Const. Ref. Plane:  -           Original Construction Year:
Last Rehab Date:  01/01/1900 (mm/dd/yyyy)   Last Inspection:  /  /
Bank Connection Description:

Design Drawings Location/Filename:

Press Ctrl-ENTER to Store
=====ESC Ctl-Enter=====

```

The following data should be entered for each structure:

Structure ID **REQUIRED DATA ELEMENT.** The structure ID is a free-form, identifying name for each structure. It can be unique for any given district, and likely varies in form from district to district. While the database can accept any type of alpha-numeric string up to 15 characters for this item, it is recommended that a standard format be implemented within each district.

FORMAT: <ANYTHING AT ALL> (e.g., Dave's Dike 1; DK40713; REV301.25L)

Standard ID **REQUIRED DATA ELEMENT.** The standard ID is generated by the program, based on the unique information provided for each structure. The format is: first 3 chars = A-Z, denoting structure type. DIK = Dike, REV = Revetment, BAF = Baffle dike, OTH = Other, etc. The next 7 (or fewer) characters correspond to the Navigation Mile and allow for two decimal places, 4 digits before and 2 digits after the decimal point. The final character corresponds to "L" for left bank, "R" for right bank (facing downstream), "B" for both banks, or "C" for center.

FORMAT: <STR.NAV_MILE.BNK> (e.g., DIK414.28L; REV414.32B; BAF414.30R)

Last CI Value **OPTIONAL DATA ELEMENT.** The latest Condition Index value stored for this structure. It is supplied by the program from the entered inspection data.

Last RPI Value	<p>OPTIONAL DATA ELEMENT. The latest Repair Priority Index value stored for this structure. It is supplied by the program from the entered inspection data.</p>
County	<p>OPTIONAL DATA ELEMENT. The county in which the structure exists. It may be any character string up to 15 characters in length.</p> <p>FORMAT: <ANYTHING AT ALL> (e.g., Orange, Cook, Dade)</p>
State	<p>OPTIONAL DATA ELEMENT. The state where the structure being inspected exists.</p> <p>FORMAT: <SS> (e.g., MI for Michigan, or IL for Illinois, or any other state's postal code)</p>
River/Waterway	<p>REQUIRED DATA ELEMENT. The river or waterway on which the structure exists. This item is selected in a separate menu, prior to the data entry screen, and automatically entered into the appropriate field. This element is required to help identify all structures within the database.</p> <p>(e.g., MISSISSIPPI, MISSOURI, OHIO)</p>
Levee District	<p>OPTIONAL DATA ELEMENT. Name of the Levee District (if any) containing the structure.</p> <p>FORMAT: <ANYTHING AT ALL></p>
Land Owner	<p>OPTIONAL DATA ELEMENT. Information identifying the owner of the land where the structure is located or adjacent to. Entries may be anything including names and telephone numbers that will help identify, locate, and contact the responsible property owner.</p> <p>FORMAT: <ANYTHING AT ALL> (e.g., F. Jones, 217/555-1212)</p>
Reach	<p>OPTIONAL DATA ELEMENT. A continuous and uninterrupted extent or stretch of water usually named for some local structure, geologic or geographic feature unique to the reach (e.g., Dog Leg Bend, White Water Run, St. Louis Harbor Reach)</p> <p>For waterways with navigation control structures, this is the name given the body of water between two navigation dams (e.g., Pool 13, Clinton Lake). A string of up to 15 characters is allowed for this item.</p>

FORMAT: <ANYTHING AT ALL>

Gauge Name	<p>OPTIONAL DATA ELEMENT. The name of the specific gauge instrument from which the water level at a particular reach is observed. This is a free-form entry.</p> <p>FORMAT: <ANYTHING AT ALL> (e.g., St. Louis Harbor Gauge)</p>
Gauge Reading	<p>OPTIONAL DATA ELEMENT. The observed measurement of the height of the water level at the structure, as read from the instrument identified in the Gauge Name.</p> <p>FORMAT: Feet, <###.##></p>
Nav. Mile/To	<p>REQUIRED DATA ELEMENT. Location of the structure in relationship to the navigation mile on the waterway. This item is a single point for dikes, but may include a beginning and ending point for revetments. For revetment, navigation mile is usually reported at the upstream end, but this program allows breaking long revetments into any desired number of smaller management sections. This is accomplished by allowing data specifying the downstream navigation mile marker at the end of the revetment structure.</p> <p>FORMAT: <####.##> (e.g., Mile 122.03)</p>
Structure Type	<p>REQUIRED DATA ELEMENT. The type of structure, either dike or revetment and their various subtypes, selected by highlighting the appropriate choice on a pop-up menu. The user may chose from Revetment, Dike, L-Head, Baffle, Benway Weir, Bullnose, Chevron, Closure, Hard Point, Kicker, MRS, Off Bank, Spur, Toe Dike, Training, Vane, Weir, Wing Dam, or Other.</p>
Bank	<p>REQUIRED DATA ELEMENT. The river bank, facing downstream, to which the structure is attached or associated with. The choice (Right, Left, Both, or Center) for this item is selected from a pop-up menu.</p>
Purpose	<p>OPTIONAL DATA ELEMENT. The structure's primary design purpose. Selection is made by highlighting the appropriate choice from a pop-up menu, from which the user may choose Bank Stabilization, Channel Improvement, Environmental, or Other.</p>

Construction **OPTIONAL DATA ELEMENT.** The type of construction for the structure. Selection is made by highlighting the appropriate choice from a pop-up menu of various construction types. The user may chose from Stone, Stone & Timber Pile, Timber Pile, and Concrete Pile for DIKES & REVETMENTS, or from Stone Fill, Dumped Stone, Pile Revet/Stone Fill, Mattress Revetment, Trench Fill, and Hybrid for REVETMENTS.

Overall Des. Len. **OPTIONAL DATA ELEMENT.** The length of the structure, as designed, in feet. This data element is listed primarily for reference purposes during inspections in the field. The idea is to give a good estimate of how far the structure extends out into the river, or along the river's bank.

FORMAT: FT <###.##> (e.g., 182 ft)

Avg. Crown Wid. **OPTIONAL DATA ELEMENT.** Average width of the top or crown of the structure measured in feet.

FORMAT: FT <###.##> (e.g., 4.75 ft)

CRP **REQUIRED DATA ELEMENT.** The Construction Reference Plane (CRP) is a reference elevation (relative to sea level) that can have different definitions within different Districts. It is essentially a low water profile elevation that is used as a reference for the construction of riverine control structures. For example, in the Little Rock District, the CRP is the elevation of the Arkansas River when it is running at 15,000 to 20,000 cubic ft per second (CFS). For some districts, the CRP is defined as the elevation attained when the discharge at a chosen downstream location is at the level that is equaled or exceeded 70% of the time. It may be entered as a range of two numbers.

FORMAT: <####.##> (e.g., 481 ft, or 481.5 - 481.0)

Orig. Const. Year **OPTIONAL DATA ELEMENT.** Year of original construction of the structure.

FORMAT: <YYYY> (e.g., 1949)

Last Rehab Date **OPTIONAL DATA ELEMENT.** Currently entered by the user. Future versions of this program may provide this element automatically.

FORMAT: <MM/DD/YYYY> (e.g., 09/01/1995)

Last Insp. Date	OPTIONAL DATA ELEMENT. Date of the last recorded inspection of the structure. The program provides this element automatically. FORMAT: <MM/DD/YYYY> (e.g., 09/01/1995)
Bank Con. Desc.	OPTIONAL DATA ELEMENT. This is a free-form entry of up to five lines of text describing how the structure is connected to the bank or shore. FORMAT: <ANYTHING AT ALL>
Insp. Filename	OPTIONAL DATA ELEMENT. This is a free-form entry of one or two lines of text recording information on the storage location of the actual inspection notes. FORMAT: <ANYTHING AT ALL> (e.g., Gail's PC; C:\wpwin\docs\dec- insp.wpd)

The **Data Field Cursor Keys** may be used to move the cursor from field to field on the form.

The **Data Field Edit Keys** may be used to enter or modify data within fields.

Press **Ctrl-ENTER** to store the entered data. If one or more of the required data fields is not entered the data will not be stored and the cursor will move to the first required field not entered and wait for the user to enter data into the field. **ESC** will exit the form without storing entered or modified data.

Editing a Structure

To edit a Structure:

Select **Dike & Revetment Data Entry**, option 1 from the Main Menu.

Select **Enter/Modify Structure Information**, option 3. The **Select Waterway** screen will be displayed.

Select the river or waterway where the structure is located using the arrow keys or the mouse to move the highlight bar to the desired river/waterway in the list. Press **ENTER** or click the Left Mouse Button to confirm the selection.

After the river/waterway has been selected, the **Select Structure** screen is displayed.

EDIT STRUC	Division: Southwestern Division	ED21
DATA	District: Little Rock	
Select	Waterway: ARKANSAS RIVER, DARDANELLE	
Structure		F1 - HELP

=====Defined Structures=====		
	Structure ID	Standard ID
Select a listed STRUCTURE to edit previously entered data. Press INS to create a new STRUCTURE entry. DEL can be used to delete all data for a given STRUCTURE.	D282.3R	DIK229.65R
	D283.6R	DIK230.50R
	R286.8L	REV234.00L
	D286.3R	DIK234.00R
	D286.6R	DIK234.40R
	D286.0L	DIK234.75L
	D286.3L	DIK234.90L
	D287.2R	DIK235.10R
	R287.3L	REV235.12L
	D287.9R	DIK235.80R
	R287.9R	REV235.81R
	D288.4R	DIK236.30R
	Ins Del =====	Enter ESC
Use arrow keys to position; ENTER to select; ESC to Exit		

To select a structure to edit use the arrow keys or the mouse to move the highlight bar to the desired structure in the list. Press **ENTER** or click the Left Mouse Button to confirm the selection. The **Edit Structure Data** screen will be displayed with the current stored data for the structure available to be modified.

The **Data Field Cursor Keys** may be used to move the cursor from field to field on the form. The **Data Field Edit Keys** may be used to enter or modify data within fields.

Press **Ctrl-ENTER** to store the entered data. If one or more of the required data fields is not entered the data will not be stored and the cursor will move to the first required field not entered and wait for the user to enter data into the field. **ESC** will exit the form without storing entered or modified data.

Deleting a Structure

To delete a Structure:

Select **Dike & Revetment Data Entry**, option 1 from the Main Menu.

Select **Enter/Modify Structure Information**, option 3. The **Select Waterway** screen will be displayed.

Select the river or waterway where the structure is located using the arrow keys or the mouse to move the highlight bar to the desired river/waterway in the list. Press **ENTER** or click the Left Mouse Button to confirm the selection.

After the river/waterway has been selected, the **Select Structure** screen is displayed.

EDIT STRUC	Division: Southwestern Division	ED21
DATA	District: Little Rock	
Select	Waterway: ARKANSAS RIVER, DARDANELLE	
Structure		F1 - HELP

	Defined Structures	
	Structure ID	Standard ID
Select a listed	D282.3R	DIK229.65R
STRUCTURE to edit	D283.6R	DIK230.50R
previously entered	R286.8L	REV234.00L
data.	D286.3R	DIK234.00R
	D286.6R	DIK234.40R
Press INS	D286.0L	DIK234.75L
to create a new	D286.3L	DIK234.90L
STRUCTURE entry.	D287.2R	DIK235.10R
	R287.3L	REV235.12L
DEL can be used	D287.9R	DIK235.80R
to delete all	R287.9R	REV235.81R
data for a given	D288.4R	DIK236.30R
STRUCTURE.	Ins Del	Enter ESC

Use arrow keys to position; ENTER to select; ESC to Exit

To select a structure to delete use the arrow keys or the mouse to move the highlight bar to the desired structure in the list. Press **DEL** or click the Left Mouse Button on the DEL label on the list box. A box will pop-up asking to confirm the deletion. Press **Y** or click the Left Mouse Button on the Yes label on the confirm box to perform the deletion. Press **N** or click the Left Mouse Button on the No or ESC labels to stop the deletion.

If a structure is deleted, all other stored data associated with it (inspection, M&R, etc.) are also deleted. **Therefore, be very careful when deleting structure information.**

Add/Edit/Delete a River/Waterway

DIKE_CI comes preloaded with a database containing most rivers and waterways for the listed districts. The user may find that one or more rivers or waterways are not in the included database or that the existing waterways need more specificity (i.e., Mississippi River, Pool 20 [rather than just Mississippi River]) to allow a reasonable number of structures (100 or less per waterway is suggested) to be associated with a given waterway. Waterways may also be deleted from the database. The following instructions will show the user how to add, edit, or delete a river or waterway to or from the system.

To add a River/Waterway:

Select **Dike & Revetment Data Entry**, option 1 from the Main Menu. The following screen will appear showing the Data Entry/Modification Menu.

EDIT MENU	Division: Southwestern Division District: Little Rock	EM1 F1 - HELP
--------------	--	----------------------

```

===== Data Entry/Modification Menu =====
Enter/Modify Inspection Data
Enter/Modify Inspection Team
Enter/Modify Structure Information
Enter/Modify Maintenance & Repair Data
Change an Inspection Date
Add/Edit River/Waterway

```

Use arrow keys to position; ENTER to add/edit River/Waterway; ESC to Exit

Select **Add/Edit River Waterway**, option 6 on the DataEntry/Modification Menu. The **Add/Edit Waterway** screen will be displayed.

ADD/EDIT WATERWAY	Division: Southwestern Division District: Little Rock	ED50 F1 - HELP
----------------------	--	-----------------------

Select a listed
WATERWAY to edit
current name.

Press INS to
create a new
WATERWAY entry.

DEL can be used
to delete a
listed WATERWAY.

```

=====Rivers/Waterways=====
ARKANSAS RIVER, DARDANELLE
ARKANSAS RIVER, MORGAN POINT
ARKANSAS RIVER, OZARK
ARKANSAS RIVER, POOL 02
ARKANSAS RIVER, POOL 03
ARKANSAS RIVER, POOL 04
ARKANSAS RIVER, POOL 05
ARKANSAS RIVER, POOL 06
ARKANSAS RIVER, POOL 07
ARKANSAS RIVER, POOL 08
ARKANSAS RIVER, POOL 09
ARKANSAS RIVER, POOL 13
ARKANSAS RIVER, WREC
BLACK RIVER
Ins Del ===== Enter ESC

```

Use arrow keys to position; ENTER to select a River/Waterway

To add a river or waterway to the database, press the **INS** key or click the **INS** label on the selection box with the Left Mouse Button. The Enter River/Waterway box will pop-up. Type the name of the new river or waterway in the data field. Press **Ctrl-ENTER** or click the **Ctrl-ENTER** label with the Left Mouse Button to store the entered data. A check for duplicate names is done and an error message would be displayed if the new river or waterway already exists for the current District/Division.

ADD/EDIT WATERWAY	Division: Southwestern Division District: Little Rock	ED50 F1 - HELP
----------------------	--	-----------------------

Rivers/Waterways

ARKANSAS RIVER, DARDANELLE

Enter River/Waterway

River Name:

Press Ctrl-ENTER to Store

ESC Ctrl-Enter

ARKANSAS RIVER, POOL 07

ARKANSAS RIVER, POOL 08

ARKANSAS RIVER, POOL 09

ARKANSAS RIVER, POOL 13

ARKANSAS RIVER, WREC

BLACK RIVER

Enter a River/Waterway; Ctrl-ENTER to Store; ESC to Exit

To edit a River/Waterway:

Select **Dike & Revetment Data Entry**, option 1 from the Main Menu. The following screen will appear showing the Data Entry/Modification Menu.

EDIT MENU	Division: Southwestern Division District: Little Rock	EM1 F1 - HELP
--------------	--	----------------------

Data Entry/Modification Menu

Enter/Modify Inspection Data

Enter/Modify Inspection Team

Enter/Modify Structure Information

Enter/Modify Maintenance & Repair Data

Change an Inspection Date

Add/Edit River/Waterway

Use arrow keys to position; ENTER to add/edit River/Waterway; ESC to Exit

Select **Add/Edit River Waterway**, option 6 on the Data Entry/Modification Menu. The **Add/Edit Waterway** screen will be displayed.

ADD/EDIT WATERWAY	Division: Southwestern Division District: Little Rock	ED50 1 - HELP
----------------------	--	----------------------

Select a listed WATERWAY to edit current name. Press INS to create a new WATERWAY entry. DEL can be used to delete a listed WATERWAY.	Rivers/Waterways ARKANSAS RIVER, DARDANELLE ARKANSAS RIVER, MORGAN POINT ARKANSAS RIVER, OZARK ARKANSAS RIVER, POOL 02 ARKANSAS RIVER, POOL 03 ARKANSAS RIVER, POOL 04 ARKANSAS RIVER, POOL 05 ARKANSAS RIVER, POOL 06 ARKANSAS RIVER, POOL 07 ARKANSAS RIVER, POOL 08 ARKANSAS RIVER, POOL 09 ARKANSAS RIVER, POOL 13 ARKANSAS RIVER, WREC BLACK RIVER
	Ins Del ===== Enter ESC

Use arrow keys to position; ENTER to select a River/Waterway

To edit a river or waterway in the database, move the highlight bar to the desired item using the arrow keys or the mouse. Then press the **ENTER** key or click the Left Mouse Button to confirm the selection. The Enter River/Waterway box will pop-up with the name of the river or waterway in the data field. Edit the name using the Data Field Edit Keys. Press **Ctrl-ENTER** or click the Ctrl-ENTER label with the Left Mouse Button to store the entered data. A check for duplicate names is done and an error message would be displayed if the edited river or waterway already exists for the current District/Division.

ADD/EDIT WATERWAY	Division: Southwestern Division District: Little Rock	ED50 F1 - HELP
----------------------	--	-----------------------

Select a listed WATERWAY to edit current name Press INS to create a new WATERWAY entry. DEL can be used to delete a listed WATERWAY.	Rivers/Waterways ARKANSAS RIVER, DARDANELLE
	Edit River/Waterway River Name: ARKANSAS RIVER, DARDANELLE Press Ctrl-ENTER to Store =====ESC Ctl-Enter ARKANSAS RIVER, POOL 07 ARKANSAS RIVER, POOL 08 ARKANSAS RIVER, POOL 09 ARKANSAS RIVER, POOL 13 ARKANSAS RIVER, WREC BLACK RIVER

Enter a River/Waterway; Ctrl-ENTER to Store; ESC to Exit

To delete a River/Waterway:

Select **Dike & Revetment Data Entry**, option 1 from the Main Menu. The following screen will appear showing the Data Entry/Modification Menu.

EDIT MENU	Division: Southwestern Division District: Little Rock	EM1 F1 - HELP
--------------	--	----------------------

```

===== Data Entry/Modification Menu =====
Enter/Modify Inspection Data
Enter/Modify Inspection Team
Enter/Modify Structure Information
Enter/Modify Maintenance & Repair Data
Change an Inspection Date
Add/Edit River/Waterway
  
```

Use arrow keys to position; ENTER to add/edit River/Waterway; ESC to Exit

Select **Add/Edit River Waterway**, option 6 on the Data Entry/Modification Menu. The **Add/Edit Waterway** screen will be displayed.

ADD/EDIT WATERWAY	Division: Southwestern Division District: Little Rock	ED50 F1 - HELP
----------------------	--	-----------------------

```

===== Rivers/Waterways =====
ARKANSAS RIVER, DARDANELLE
ARKANSAS RIVER, MORGAN POINT
ARKANSAS RIVER, OZARK
ARKANSAS RIVER, POOL 02
ARKANSAS RIVER, POOL 03
ARKANSAS RIVER, POOL 04
ARKANSAS RIVER, POOL 05
ARKANSAS RIVER, POOL 06
ARKANSAS RIVER, POOL 07
ARKANSAS RIVER, POOL 08
ARKANSAS RIVER, POOL 09
ARKANSAS RIVER, POOL 13
ARKANSAS RIVER, WREC
BLACK RIVER
Ins Del ===== Enter ESC
  
```

Select a listed WATERWAY to edit current name.

Press INS to create a new WATERWAY entry.

DEL can be used to delete a listed WATERWAY.

Use arrow keys to position; ENTER to select a River/Waterway

To delete a river or waterway from the database, move the highlight bar to the desired item using the arrow keys or the mouse. Then press the **DEL** key or click the Left Mouse Button on the DEL label on the selection box to delete the selection. A confirmation box will pop-up asking if you want to delete the item. Press **Y** or click the Left Mouse Button on the Yes label to confirm the deletion. Press **N** or **ESC** or click the No label to stop the deletion from occurring. **Be very careful! Any data entered for the deleted waterway will also be deleted.**

4 Inspection

This chapter will discuss how data from the inspection of a dike or revetment structure is entered, modified, or deleted. Before any inspection data can be entered into the system, basic data about the structure being inspected must be entered. If the structure inventory data has already been entered, it is available in the system and need not be reentered. If the structure inventory has not been entered, see Chapter 3, **Inventory**, for information on how to enter structure inventory data.

Adding Inspection Data

To add Inspection Data:

Select **Dike & Revetment Data Entry**, option 1 from the Main Menu. The following screen will appear showing the Data Entry/Modification Menu.

EDIT MENU	Division: Southwestern Division District: Little Rock	EM1 F1 - HELP
--------------	--	----------------------

```
==== Data Entry/Modification Menu =====
Enter/Modify Inspection Data
Enter/Modify Inspection Team
Enter/Modify Structure Information
Enter/Modify Maintenance & Repair Data
Change an Inspection Date
Add/Edit River/Waterway
```

Use arrow keys to position; ENTER to enter/edit Inspection Data; ESC to Exit

Select **Enter/Modify Inspection Data**, option 1. The **Select Waterway** screen will be displayed. This is a list of available rivers and waterways that are found in the current division/district.

To select a river or waterway use the arrow keys or the mouse to move the highlight bar to the desired river/waterway in the list. Press **ENTER** or click the mouse button to confirm the selection.

EDIT INSP	Division: Southwestern Division	ED1
DATA	District: Little Rock	
Select		
Waterway		F1 - HELP

Select a listed
RIVER/WATERWAY
to EDIT/ENTER
Inspection Data.

Rivers/Waterways	
ARKANSAS RIVER, DARDANELLE	
ARKANSAS RIVER, MORGAN POINT	
ARKANSAS RIVER, OZARK	
ARKANSAS RIVER, POOL 02	
ARKANSAS RIVER, POOL 03	
ARKANSAS RIVER, POOL 04	
ARKANSAS RIVER, POOL 05	
ARKANSAS RIVER, POOL 06	
ARKANSAS RIVER, POOL 07	
ARKANSAS RIVER, POOL 08	
ARKANSAS RIVER, POOL 09	
ARKANSAS RIVER, POOL 13	
ARKANSAS RIVER, WREC	
BLACK RIVER	

Enter ESC

Use arrow keys or mouse to position; ENTER to select

After the river/waterway has been selected, the **Select Inspection Date** screen is displayed. If there are no previously created inspection dates for the selected waterway, the following display is presented.

EDIT INSP	Division: Southwestern Division	ED2
DATA	District: Little Rock	
Select	Waterway: ARKANSAS RIVER, DARDANELLE	
Insp Date		F1 - HELP

Confirmation: y/n	
No Inspection Dates Exist. Create One [Y/N]? [N]	
Yes	No ESC

Use arrow keys or mouse to position; ENTER to select

To create an inspection date, press **Y** or click the Yes label. Press **N** or **ESC** or click on those labels to return to the **Select Waterway** screen. If one or more inspection dates exist for the selected waterway, they are presented in a list.

EDIT INSP	Division: Southwestern Division	ED2
DATA	District: Little Rock	
Select	Waterway: ARKANSAS RIVER, DARDANELLE	
Insp Date		F1 - HELP

Select an INSPECTION DATE from the list or Press INS to create a new INSPECTION DATE.	Inspection Dates
	07/10/1995
	01/01/1997
	Ins Del == Enter ESC

DEL can be used to
delete all data for
a given INSPECTION DATE.

Use arrow keys or mouse to position; ENTER to select

To add new inspection data, select the inspection date from the given list. If the date is not on the list press **INS** to create a new inspection date.

After selecting **YES** or **INS**, the **Create Inspection Date** screen is displayed.

EDIT INSP	Division: Southwestern Division	ED3
DATA	District: Little Rock	
Create	Waterway: ARKANSAS RIVER, DARDANELLE	
Insp Date		F1 - HELP

-----Enter Inspection Date-----

Inspection Date: 01/01/1997 (MM/DD/YYYY)

Press Ctrl-ENTER to Store

-----ESC Ctl-Enter-----

INSERT to Create an Inspection Date

The current date is displayed in the Inspection Date field. Enter the desired Inspection Date in the format shown (MM/DD/YYYY). Press **Ctrl-ENTER** to store the date. After an Inspection Date is created, the **Create Inspection Data - Inspection Team** display is presented.

EDIT INSP	Division: Southwestern Division	ED3
DATA	District: Little Rock	
Create	Waterway: ARKANSAS RIVER, DARDANELLE	
Insp Date	Inspection Date: 01/01/1997	F1 - HELP

-----Inspection Team-----

Ins Del ===== Enter ESC

Press INS to enter one Inspection Team entry at a time. Each entry can contain information such as inspector name, office symbol, phone number, etc. Use any consistent format.

This information may be entered or edited at a later time through the ENTER/EDIT INSPECTION TEAM option on the DATA ENTRY/MODIFICATION MENU.

After Inspection Team Data entry has been completed, press ESC to continue with the Inspection Data Entry

INSERT to enter Inspection Team Data; ESC to Exit

Follow the directions on the screen to enter the Inspection Team. That is, press **INS** to create an inspection team entry. Enter the inspector name and any relevant contact information in a free-form format. Press **Ctrl-ENTER** to store the entry. Repeat this process for each member of the inspection team. Press **ESC** after all inspection team entry has been completed to continue with the inspection data entry.

EDIT INSP	Division: Southwestern Division	ED3
DATA	District: Little Rock	
Create	Waterway: ARKANSAS RIVER, DARDANELLE	
Insp Date	Inspection Date: 01/01/1997	F1 - HELP

-----Inspection Team-----
 -----Enter Inspection Team-----

Inspector (Name, Contact Information, etc.):

David T. McKay, (800) USA-CERL ext 7375

Press Ctrl-ENTER to Store
 office symbol, phone number, etc. Use any consistent format.

ESC Ctl-Enter

This information may be entered or edited at a later time through the ENTER/EDIT INSPECTION TEAM option on the DATA ENTRY/MODIFICATION MENU.

After Inspection Team Data entry has been completed, press ESC to continue with the Inspection Data Entry

Enter Inspection Team Data; Ctrl-ENTER to Store; ESC to Exit

After the Inspection Date is created or selected and the Inspection Team data entered, if needed, the Select Structure display is presented.

EDIT INSP	Division: Southwestern Division	ED4
DATA	District: Little Rock	
Select	Waterway: ARKANSAS RIVER, DARDANELLE	
Structure	Inspection Date: 01/01/1997	F1 - HELP

Select a listed
 STRUCTURE to
 EDIT previously
 entered
 Inspection Data
 or select -NEW-
 to create a new
 entry.

-----Structure Inspection Data-----			
Structure ID	CI	RPI	Standard ID
-----New-----	---	5	-----
Del		Enter ESC	

DEL can be used
 to delete all
 data for a given
 STRUCTURE.

Use arrow keys or mouse to position; ENTER to select

To add new inspection data, select the item New as indicated on this screen. The **Select Structure - Defined Structures** screen will be displayed. Use the arrow keys or the mouse to highlight the structure inspected. Press **ENTER** or click the mouse to confirm the selection. If the structure has not been defined and is not on the list press the **INS** key to create an inventory entry for it. See Chapter 3 for details on inventory data field entry. After the inventory data has been entered, you can then select the structure from the **Defined Structures** list.

EDIT INSP	Division: Southwestern Division	ED5
DATA	District: Little Rock	
Select	Waterway: ARKANSAS RIVER, DARDANELLE	
Structure	Inspection Date: 01/01/1997	F1 - HELP

Select a listed
STRUCTURE to
create a new
Inspection Data
entry or

Press INS to
define a new
STRUCTURE which
can then be
selected.

-----Defined Structures-----	
Structure ID	Standard ID
D282.3R	DIK229.65R
D283.6R	DIK230.50R
R286.8L	REV234.00L
D286.3R	DIK234.00R
D286.6R	DIK234.40R
D286.0L	DIK234.75L
D286.3L	DIK234.90L
D287.2R	DIK235.10R
R287.3L	REV235.12L
D287.9R	DIK235.80R
R287.9R	REV235.81R
D288.4R	DIK236.30R

Ins ===== Enter ESC

Use arrow keys or mouse to position; ENTER to select

After the structure is selected, the **Edit Structure Inspection Data** screen is presented. (Fields editable from this screen are represented in bold type.)

-----Edit Structure Inspection Data-----		EDIN
Structure ID: D282.3R	Inspection Date: 01/01/1997	
Standard ID: DIK229.65R	Time: 00:00	
Condition Index: ---	Repair Priority Index: 5	
Gauge Name:	Gauge Reading:	ft (CRP)
Timber Condition: None		
Inspection Report Location/Filename: (if stored elsewhere)		
Press ENTER here to enter text <REMARKS>		
Press ENTER here to enter M & R Cost <Data>		
Press ENTER here to <EDIT> Structure data.		
Press Ctrl-ENTER to Store		
		ESC Ctl-Enter
Enter Inspection Data; Ctrl-ENTER to store; ESC to Exit		

The following data items should be selected or entered for each inspection entry.

Structure ID	REQUIRED DATA ELEMENT. Filled in by the program when the structure was selected. See Chapter 3 for the definition and details of this field.
Standard ID	REQUIRED DATA ELEMENT. Filled in by the program when the structure was selected. See Chapter 3 for the definition and details of this field.
Inspection Date	REQUIRED DATA ELEMENT. Date on which inspection was performed. Use the last day of multiple day

inspections. Filled in by the program through the selection process.

(Note: Unless otherwise specified by the user, reports in this program use the most recently entered data for each structure.)

FORMAT: <MM/DD/YYYY> (e.g., 10/31/1995)

Inspection Time OPTIONAL DATA ELEMENT. Time the inspection was performed.

FORMAT: <HH:MM> (e.g., 14:15 for 2:15 PM)

Condition Index REQUIRED DATA ELEMENT. A Condition Index (CI) rating system quantifies engineering judgment in regard to the condition assessment of structures. The CI produced by the system is a number from 0 to 100 that describes a structure's condition, and is often but not always an indicator of the relative need for repair in comparison to similar structures. Guidance on CI applicability is contained in the Budget Engineering Circular, which is updated every year. A list of the most recent CIs for each structure can be obtained from the database. To view this information, select Database Related Reports from the main menu, then select Inspection Data Reports, and then Condition Index Report.

(Note: entries such as 75- or 9-- will be converted to numbers (75, 9) and right-justified. Entries like -10 are not allowed.)

FORMAT: Integer <####> (e.g., 100, 85, 40)

RPI OPTIONAL DATA ELEMENT. The Repair Priority Index (RPI), in conjunction with the Condition Index (CI), is used to identify and sort lists of structures according to their condition and relative need for repair. The CI is designed to capture a "snapshot" of the structure's physical condition, integrity, and to an extent, its ability to perform its designed engineering function. However, a dike or revetment in very poor condition might not be in as great a need of repair as another in better condition, because the structure's location, performance history, or other factors intensify the consequences of poor performance or failure. The RPI encompasses issues beyond the scope of the Condition Index, such as the structure's functions and the consequences of the structure's failure. Selection is made by highlighting the appropriate choice from a pop-up menu. Choices are 1, 2A, 2B, 3, 4, or 5, with 1 indicating that

immediate action is required and 5 reflecting no action is required. See the RPI scale definition in Appendix B.

The default setting is 5.

Gauge Name **OPTIONAL DATA ELEMENT.** The name of the specific gauge instrument from which the water level at a particular reach is observed. This is a free-form entry of 20 characters.

FORMAT: <ANYTHING AT ALL> (e.g., St. Louis Harbor Gauge)

Gauge Reading **OPTIONAL DATA ELEMENT.** The observed measurement of the water level height at the structure, as read from the instrument identified in the Gauge Name.

FORMAT: Feet <###.##>

Timber Condition **OPTIONAL DATA ELEMENT.** For structures that have timber, this is the observed qualitative condition of those timbers. The condition is selected from a pop-up menu which contains the following choices: excellent, good, fair, marginal, poor, very poor, failed, none.

The default selection is none.

Insp. Filename **OPTIONAL DATA ELEMENT.** This is a free-form entry (2 lines of 64 characters each) that allows recording of information on the storage location of the actual inspection notes.

FORMAT: <ANYTHING AT ALL> (e.g., Gail's PC; C:\wpwin\docs\dec- insp.wpd)

Remarks **OPTIONAL DATA ELEMENT.** This field allows additional information or observations considered valuable by the inspection team to be recorded. The format is free-form text with a predetermined header of information including structure ID, standard ID, and inspection date.

The information is stored in a text file that can be entered and edited by any ASCII text editor (not a word processor). The default editor is the EDIT program supplied with DOS. The user can change text editors by selecting the "System Management" menu option from the main menu and choosing the "Edit System Default Values" option. Enter the path and name of the desired text editor program where indicated.

M&R Cost Data OPTIONAL DATA ELEMENT. This is a link to the Maintenance and Repair (M&R) Cost Data Entry form. This form is a list of quantities of material and labor required to bring the structure up to a satisfactory CI level. The default values for types of M&R material and labor and their unit cost can be entered and modified through the System Management options. The entry of M&R Cost Data will be discussed later in this chapter.

Edit Struct. Data OPTIONAL DATA ELEMENT. This is a link to the **Edit Structure Inventory Data** form. It allows the user to view and modify the Structure Inventory Data easily when entering the Inspection Data. See Chapter 3 for definitions of the fields on this form.

The **Data Field Cursor Keys** may be used to move the cursor from field to field on the form.

The **Data Field Edit Keys** may be used to enter or modify data within fields.

Press **Ctrl-ENTER** to store the entered data. If one or more of the required data fields is not entered the data will not be stored and the cursor will move to the first required field not entered and wait for the user to enter data into the field. **ESC** will exit the form without storing entered or modified data.

Editing Inspection Data

To edit inspection Data:

Select **Dike & Revetment Data Entry**, option 1 from the Main Menu. The following screen will appear showing the Data Entry/Modification Menu.

EDIT MENU	Division: Southwestern Division District: Little Rock	EM1 F1 - HELP
--------------	--	----------------------

===== Data Entry/Modification Menu ===== Enter/Modify Inspection Data Enter/Modify Inspection Team Enter/Modify Structure Information Enter/Modify Maintenance & Repair Data Change an Inspection Date Add/Edit River/Waterway

Use arrow keys to position; **ENTER** to enter/edit Inspection Data; **ESC** to Exit

Select **Enter/Modify Inspection Data**, option 1. The **Select Waterway** screen will be displayed. This is a list of available rivers and waterways that are found in the current division/district.

To select a river or waterway use the arrow keys or the mouse to move the highlight bar to the desired river/waterway in the list. Press **ENTER** or click the mouse button to confirm the selection.

EDIT INSP	Division: Southwestern Division	ED1
DATA	District: Little Rock	
Select		
Waterway		F1 - HELP

Select a listed
RIVER/WATERWAY
to EDIT/ENTER
Inspection Data.

====Rivers/Waterways=====

ARKANSAS RIVER, DARDANELLE

ARKANSAS RIVER, MORGAN POINT

ARKANSAS RIVER, OZARK

ARKANSAS RIVER, POOL 02

ARKANSAS RIVER, POOL 03

ARKANSAS RIVER, POOL 04

ARKANSAS RIVER, POOL 05

ARKANSAS RIVER, POOL 06

ARKANSAS RIVER, POOL 07

ARKANSAS RIVER, POOL 08

ARKANSAS RIVER, POOL 09

ARKANSAS RIVER, POOL 13

ARKANSAS RIVER, WREC

BLACK RIVER

Enter ESC

Use arrow keys or mouse to position; ENTER to select

After the river/waterway has been selected the **Select Inspection Date** screen is displayed. One or more inspection dates for the selected waterway are presented in a list. If no inspection date exists for the selected waterway, see **ADDING INSPECTION DATA** earlier in this chapter.

EDIT INSP	Division: Southwestern Division	ED2
DATA	District: Little Rock	
Select	Waterway: ARKANSAS RIVER, DARDANELLE	
Insp Date		F1 - HELP

Select an INSPECTION
DATE from the list or
Press INS to create
a new INSPECTION DATE.

====Inspection Dates=====

07/10/1995

01/01/1997

Ins Del == Enter ESC

DEL can be used to
delete all data for
a given INSPECTION DATE.

Use arrow keys or mouse to position; ENTER to select

To edit inspection data select the inspection date from the given list.

After the inspection date is selected, the **Select Structure** display is presented.

EDIT INSP	Division: Southwestern Division	ED4
DATA	District: Little Rock	
Select	Waterway: ARKANSAS RIVER, DARDANELLE	
Structure	Inspection Date: 01/01/1997	F1 - HELP

Structure Inspection Data			
Structure ID	CI	RPI	Standard ID
-----New-----	---	5	-----
D282.3R	70	3	DIK229.65R
Del =====		Enter ESC	

Select a listed
STRUCTURE to
EDIT previously
entered
Inspection Data
or select -NEW-
to create a new
entry.
DEL can be used
to delete all
data for a given
STRUCTURE.

Use arrow keys or mouse to position; ENTER to select

To edit inspection data use the arrow keys or the mouse to highlight the structure inspected. Press **ENTER** or click the mouse to confirm the selection.

After the structure is selected, the **Edit Structure Inspection Data** display is presented.

Edit Structure Inspection Data		EDIN
Structure ID: D282.3R	Inspection Date: 01/01/1997	
Standard ID: DIK229.65R	Time: 00:00	
Condition Index: ---	Repair Priority Index: 5	
Gauge Name:	Gauge Reading: ft (CRP)	
Timber Condition: None		
Inspection Report Location/Filename: (if stored elsewhere)		
Press ENTER here to enter text <REMARKS>		
Press ENTER here to enter M & R Cost <Data>		
Press ENTER here to <EDIT> Structure data.		
Press Ctrl-ENTER to Store		
		ESC Ctrl-Enter

Enter Inspection Data; Ctrl-ENTER to store; ESC to Exit

The **Data Field Cursor Keys** may be used to move the cursor from field to field on the form. The **Data Field Edit Keys** may be used to enter or modify data within fields.

Press **Ctrl-ENTER** to store the edited data. If one or more of the required data fields is not entered, the screen remains unchanged and unsaved. The cursor will move to the first required field not entered and wait for the user to enter data into the field. Press **Ctrl-ENTER** again to store the data. **ESC** will exit the form without storing newly entered or modified data.

Deleting Inspection Data

To delete inspection data:

Select **Dike & Revetment Data Entry**, option 1 from the Main Menu. The following screen will appear showing the Data Entry/Modification Menu.

EDIT MENU	Division: Southwestern Division District: Little Rock	EM1 F1 - HELP
--------------	--	----------------------

==== Data Entry/Modification Menu =====

Enter/Modify Inspection Data

Enter/Modify Inspection Team

Enter/Modify Structure Information

Enter/Modify Maintenance & Repair Data

Change an Inspection Date

Add/Edit River/Waterway

Use arrow keys to position; ENTER to enter/edit Inspection Data; ESC to Exit

Select **Enter/Modify Inspection Data**, option 1. The **Select Waterway** screen will be displayed. This is a list of available rivers and waterways that are found in the current division/district.

To select a river or waterway use the arrow keys or the mouse to move the highlight bar to the desired river/waterway in the list. Press **ENTER** or click the mouse button to confirm the selection.

EDIT INSP DATA Select Waterway	Division: Southwestern Division District: Little Rock	ED1 F1 - HELP
---	--	----------------------

Select a listed
RIVER/WATERWAY
to EDIT/ENTER
Inspection Data.

==== Rivers/Waterways =====

ARKANSAS RIVER, DARDANELLE

ARKANSAS RIVER, MORGAN POINT

ARKANSAS RIVER, OZARK

ARKANSAS RIVER, POOL 02

ARKANSAS RIVER, POOL 03

ARKANSAS RIVER, POOL 04

ARKANSAS RIVER, POOL 05

ARKANSAS RIVER, POOL 06

ARKANSAS RIVER, POOL 07

ARKANSAS RIVER, POOL 08

ARKANSAS RIVER, POOL 09

ARKANSAS RIVER, POOL 13

ARKANSAS RIVER, WREC

BLACK RIVER

Enter ESC

Use arrow keys or mouse to position; ENTER to select

After the river/waterway has been selected the **Select Inspection Date** screen is displayed. One or more inspection dates for the selected waterway are presented in a list. If no inspection date exists for the selected waterway, there is no data for that inspection date to delete.

EDIT INSP	Division: Southwestern Division	ED2
DATA	District: Little Rock	
Select	Waterway: ARKANSAS RIVER, DARDANELLE	
Insp Date		F1 - HELP

Select an INSPECTION DATE from the list or Press INS to create a new INSPECTION DATE.

Inspection Dates	
07/10/1995	
01/01/1997	

Ins Del == Enter ESC

DEL can be used to delete all data for a given INSPECTION DATE.

Use arrow keys or mouse to position; ENTER to select

To delete all inspection data for an inspection date use the cursor keys or the mouse to highlight the desired inspection date in the list displayed. Then press the **DEL** key or click the Del label on the selection box with the mouse. A confirmation box will appear. Press **Y** or click the Yes label to confirm the deletion of all data for the selected inspection date. Press **N** or **ESC** or click the No or ESC labels to prevent the data deletion.

To delete inspection data for a specific structure select the inspection date as you would to edit the desired data. The **Select Structure** display will be presented.

EDIT INSP	Division: Southwestern Division	ED4
DATA	District: Little Rock	
Select	Waterway: ARKANSAS RIVER, DARDANELLE	
Structure	Inspection Date: 01/01/1997	F1 - HELP

Select a listed STRUCTURE to EDIT previously entered Inspection Data or select -NEW- to create a new entry.

Structure Inspection Data			
Structure ID	CI	RPI	Standard ID
-----New-----	---	5	-----
D282.3R	70	3	DIK229.65R

Del == Enter ESC

DEL can be used to delete all data for a given STRUCTURE.

Use arrow keys or mouse to position; ENTER to select

To delete inspection data use the arrow keys or the mouse to highlight the structure inspected. Press **DEL** or click the Del label with the mouse to confirm the selection. A confirmation box will appear. Press **Y** or click the Yes label to confirm the deletion of inspection data for the selected structure for the selected inspection date. Press **N** or **ESC** or click the No or ESC labels to prevent the data deletion.

Add/Edit/Delete Inspection Team Data

Inspection team data is added when an inspection date is created. Instructions to enter the Inspection Team are in the **ADDING INSPECTION DATA** section

earlier in this chapter.

To add additional team data or to edit or delete previously entered team data:

Select **Dike & Revetment Data Entry**, option 1 from the Main Menu. The following screen will appear showing the Data Entry/Modification Menu.

EDIT MENU	Division: Southwestern Division District: Little Rock	EM1 F1 - HELP
--------------	--	----------------------

```
===== Data Entry/Modification Menu =====
Enter/Modify Inspection Data
Enter/Modify Inspection Team
Enter/Modify Structure Information
Enter/Modify Maintenance & Repair Data
Change an Inspection Date
Add/Edit River/Waterway
```

Use arrow keys to position; ENTER to enter/edit Inspection Data; ESC to Exit

Select **Enter/Modify Inspection Team**, option 2. The **Select Waterway** screen will be displayed. This is a list of available rivers and waterways that are found in the current division/district that have inspection dates associated with them.

To select a river or waterway use the arrow keys or the mouse to move the highlight bar to the desired river/waterway in the list. Press **ENTER** or click the mouse button to confirm the selection.

EDIT INSP TEAM DATA Select Waterway	Division: Southwestern Division District: Little Rock	ED10 F1 - HELP
--	--	-----------------------

Select a listed
RIVER/WATERWAY
to EDIT/ENTER
Inspection Team
Data.

```
===== Rivers/Waterways =====
ARKANSAS RIVER, DARDANELLE
ARKANSAS RIVER, POOL 02
ARKANSAS RIVER, POOL 03
ARKANSAS RIVER, POOL 04
ARKANSAS RIVER, POOL 05
ARKANSAS RIVER, POOL 06
ARKANSAS RIVER, POOL 07
```

Enter ESC

Use arrow keys or mouse to position; ENTER to select

After the river/waterway has been selected the **Select Inspection Date** screen is displayed.

EDIT INSP TEAM DATA Select Insp Date	Division: Southwestern Division District: Little Rock Waterway: ARKANSAS RIVER, DARDANELLE	ED11 F1 - HELP
---	--	-----------------------

```
===== Inspection Dates =====
07/10/1995
01/01/1997
```

Enter ESC

Select a listed INSPECTION DATE to edit previously entered data.

Use arrow keys or mouse to position; ENTER to select

Select the desired inspection date using the arrow keys or the mouse. Press **ENTER** or click on the Enter label to confirm the selection. The **Select Inspector** form will be displayed.

EDIT INSP	Division: Southwestern Division	ED12
TEAM DATA	District: Little Rock	
Select	Waterway: ARKANSAS RIVER, DARDANELLE	
Inspector	Inspection Date: 01/01/1997	F1 - HELP

-----Inspection Team-----	
David T. McKay, (800) USA-CERL ext 7375	
John M. Elston, (217) 367-3273	
Ins	Del ----- Enter ESC -----

Select a listed INSPECTOR to edit previously entered data or Press INS to create a new INSPECTOR entry.

INSERT to enter Inspection Team Data; ESC to Exit

To add new inspectors press the **INS** key or click the Ins label on the selection box. The **Edit Inspection Team** box will be displayed.

EDIT INSP	Division: Southwestern Division	ED12
TEAM DATA	District: Little Rock	
Select	Waterway: ARKANSAS RIVER, DARDANELLE	
Inspector	Inspection Date: 01/01/1997	F1 - HELP

-----Inspection Team-----	
-----Edit Inspection Team-----	
Inspector (Name, Contact Information, etc.):	
Press Ctrl-ENTER to Store	
-----ESC Ctrl-Enter-----	

Select a listed INSPECTOR to edit previously entered data or Press INS to create a new INSPECTOR entry.

Enter Inspection Team Data; Ctrl-ENTER to Store; ESC to Exit

Enter the new inspector data in the available field. Press **Ctrl-ENTER** to store the data.

To edit previously entered team data use the arrow keys or the mouse to highlight the desired entry. Press the **ENTER** key or click the Enter label with the mouse to confirm the selection. The **Edit Inspection Team** box will be displayed with the previously entered data in the available data field.

EDIT INSP	Division:	Southwestern Division	ED12
TEAM DATA	District:	Little Rock	
Select	Waterway:	ARKANSAS RIVER, DARDANELLE	
Inspector	Inspection Date:	01/01/1997	F1 - HELP

```

=====Inspection Team=====
=====Edit Inspection Team=====
Inspector (Name, Contact Information, etc.):
    David T. McKay, (800) USA-CERL ext 7375
    Press Ctrl-ENTER to Store
=====ESC  Ctl-Enter=====

```

Select a listed INSPECTOR to edit previously entered data or Press INS to create a new INSPECTOR entry.

Enter Inspection Team Data; Ctrl-ENTER to Store; ESC to Exit

Modify the inspector data as needed and press **Ctrl-ENTER** or click the Ctrl-Enter label to store the changes. Pressing the **ESC** key causes the changes not to be stored.

To delete previously entered team data use the arrow keys or the mouse to highlight the desired entry. Press the **DEL** key or click the Del label with the mouse to confirm the selection. A confirmation box will be displayed. Press **Y** or click the Yes label to delete the selected data. Press **N** or **ESC** or click the No or ESC labels to stop the deletion.

Add/Edit/Delete M&R Cost Data

To add M&R Cost Data follow the instructions for **ADDING INSPECTION DATA** or **EDITING INSPECTION DATA** earlier in this chapter. On the Edit Structure Inspection Data form, move the cursor to the M&R Cost Data entry option on the bottom portion of the display. Press **ENTER** to activate the button. The **M&R Cost Analysis Data** form will be presented. Fill in the quantities of material and labor estimated to maintain and repair the structure. The Material/Labor Type and Unit Cost columns are filled in using the default values entered in the **System Management Menu** option 2, **Edit M&R Cost Data Defaults**. These values may be modified for the current structure as desired. The Total Cost(s) column is not calculated until the data is stored.


```

=====Enter Maintenance & Repair Cost Analysis Data=====
Reach ID:      D123.4L      Inspection Date: 01/06/1997      EDMR
Standard ID:   DIK123.40L

MATERIAL/LABOR TYPE  QUANTITY  UNIT(S)  UNIT COST($)  TOTAL COST($)
Waterborne Fill      0      ton(s)   100.00        0.00
Land Borne Fill      0      ton(s)   200.00        0.00
Concrete              0      ton(s)   200.00        0.00
Timber Piling         0      dozen   100.00        0.00
Earth Moving          0      hour    50.00        0.00
Dredging              0      hour    50.00        0.00
Bank Rehab            0      hour     8.00        0.00
Skilled Labor         0      hour    12.00        0.00
Misc Labor            0      hour     7.00        0.00
Other                 0                      1.00        0.00

GRAND TOTAL COST($): 0.00

Press Ctrl-ENTER to Store Data.

Note: Totals are updated after data is stored.

=====ESC      Ctl-Enter=====

```

To edit M&R Cost Data follow the above instructions for adding M&R Cost Data. This will bring up the Enter M&R Cost Analysis Data form with any previously stored data. The data may be modified and additional data can be added. The Total Cost(s) column is not updated until the data is stored.

Another way to edit M&R Cost Data is to select **Dike & Revetment Data Entry**, option 1 from the Main Menu. The following screen will appear showing the **Data Entry/Modification Menu**.

```

=====
EDIT      Division:  Southwestern Division      EM1
MENU      District:  Little Rock

F1 - HELP

===== Data Entry/Modification Menu =====
Enter/Modify Inspection Data
Enter/Modify Inspection Team
Enter/Modify Structure Information
Enter/Modify Maintenance & Repair Data
Change an Inspection Date
Add/Edit River/Waterway
=====

```

Use arrow keys to position; ENTER to enter/edit Inspection Data; ESC to Exit

Select **Enter/Modify Maintenance & Repair Data**, option 4. The **Select Waterway** screen will be displayed. This is a list of available rivers and waterways that are found in the current division/district.

To select a river or waterway use the arrow keys or the mouse to move the highlight bar to the desired river/waterway in the list. Press **ENTER** or click the mouse button to confirm the selection.

EDIT M&R	Division: Southwestern Division	ED30
DATA	District: Little Rock	
Select		
Waterway		F1 - HELP

Select a listed
RIVER/WATERWAY
to EDIT/ENTER
Inspection Data.

Rivers/Waterways	
ARKANSAS RIVER, DARDANELLE	
ARKANSAS RIVER, MORGAN POINT	
ARKANSAS RIVER, OZARK	
ARKANSAS RIVER, POOL 02	
ARKANSAS RIVER, POOL 03	
ARKANSAS RIVER, POOL 04	
ARKANSAS RIVER, POOL 05	
ARKANSAS RIVER, POOL 06	
ARKANSAS RIVER, POOL 07	
ARKANSAS RIVER, POOL 08	
ARKANSAS RIVER, POOL 09	
ARKANSAS RIVER, POOL 13	
ARKANSAS RIVER, WREC	
BLACK RIVER	

Enter ESC

Use arrow keys or mouse to position; ENTER to select

After the river/waterway has been selected, the **Select Inspection Date** screen is displayed.

EDIT M&R	Division: Southwestern Division	ED31
DATA	District: Little Rock	
Select	Waterway: ARKANSAS RIVER, DARDANELLE	
Insp Date		F1 - HELP

Structure Inspection Data			
Structure ID	CI	RPI	Insp Date
D123.4L	75	3	01/06/1997

Del Enter ESC

Select a
STRUCTURE
INSP DATE
from list.

DEL can be
used to
delete M&R
data.

Use arrow keys or mouse to position; ENTER to select

Use the arrow keys or the mouse to position the highlight bar on the desired selection and press ENTER to select the date indicated. The Enter M&R Cost Analysis Data form will be displayed. The indicated structure and inspection date with the previously stored data will be available to be modified.

```

=====Enter Maintenance & Repair Cost Analysis Data=====
Reach ID:      D123.4L      Inspection Date: 01/06/1997      EDMR
Standard ID:   DIK123.40L

MATERIAL/LABOR TYPE    QUANTITY  UNIT(S)  UNIT COST($)  TOTAL COST($)
Waterborne Fill        0 ton(s)   100.00    0.00
Land Borne Fill        0 ton(s)   200.00    0.00
Concrete               0 ton(s)   200.00    0.00
Timber Piling          0 dozen    100.00    0.00
Earth Moving           0 hour     50.00    0.00
Dredging               0 hour     50.00    0.00
Bank Rehab             0 hour      8.00    0.00
Skilled Labor          0 hour     12.00    0.00
Misc Labor             0 hour      7.00    0.00
Other                  0          1.00    0.00

GRAND TOTAL COST($):      0.00

Press Ctrl-ENTER to Store Data.

Note: Totals are updated after data is stored.

=====ESC      Ctl-Enter=====

```

To delete M&R Cost Data select **Dike & Revetment Data Entry**, option 1 from the Main Menu. The following screen will appear showing the **Data Entry/Modification Menu**.

```

=====
EDIT          Division: Southwestern Division      EM1
MENU          District: Little Rock

F1 - HELP

===== Data Entry/Modification Menu =====
Enter/Modify Inspection Data
Enter/Modify Inspection Team
Enter/Modify Structure Information
Enter/Modify Maintenance & Repair Data
Change an Inspection Date
Add/Edit River/Waterway
=====

```

Use arrow keys to position; ENTER to enter/edit Inspection Data; ESC to Exit

Select **Enter/Modify Maintenance & Repair Data**, option 4. The **Select Waterway** screen will be displayed. This is a list of available rivers and waterways that are found in the current division/district.

To select a river or waterway use the arrow keys or the mouse to move the highlight bar to the desired river/waterway in the list. Press **ENTER** or click the mouse button to confirm the selection.

EDIT M&R	Division: Southwestern Division	ED30
DATA	District: Little Rock	
Select		
Waterway		F1 - HELP

Select a listed
RIVER/WATERWAY
to EDIT/ENTER
Inspection Data.

Rivers/Waterways
ARKANSAS RIVER, DARDANELLE
ARKANSAS RIVER, MORGAN POINT
ARKANSAS RIVER, OZARK
ARKANSAS RIVER, POOL 02
ARKANSAS RIVER, POOL 03
ARKANSAS RIVER, POOL 04
ARKANSAS RIVER, POOL 05
ARKANSAS RIVER, POOL 06
ARKANSAS RIVER, POOL 07
ARKANSAS RIVER, POOL 08
ARKANSAS RIVER, POOL 09
ARKANSAS RIVER, POOL 13
ARKANSAS RIVER, WREC
BLACK RIVER

Enter ESC

Use arrow keys or mouse to position; ENTER to select

After the river/waterway has been selected, the **Select Inspection Date** screen is displayed.

EDIT M&R	Division: Southwestern Division	ED31
DATA	District: Little Rock	
Select	Waterway: ARKANSAS RIVER, DARDANELLE	
Insp Date		F1 - HELP

Structure Inspection Data				
Structure ID	CI	RPI	Standard ID	Insp Date
D123.4L	75	3	DIK123.40L	01/06/1997
Del	Enter ESC			

Select a
STRUCTURE
INSP DATE
from list.

DEL can be
used to
delete M&R
data.

Use arrow keys or mouse to position; ENTER to select

Use the arrow keys or the mouse to position the highlight bar on the desired selection and press **DEL** to delete the data. A confirmation box will be displayed. Press the **Y** key or click the Yes label to delete the selected data or Press the **N** or **ESC** key or click the No or ESC labels to stop the deletion.

Change an Inspection Date

To change an inspection date select **Dike & Revetment Data Entry**, option 1 from the Main Menu. The following screen will appear showing the **Data Entry/Modification Menu**.

EDIT	Division: Southwestern Division	EM1
MENU	District: Little Rock	
		F1 - HELP

```

===== Data Entry/Modification Menu =====
Enter/Modify Inspection Data
Enter/Modify Inspection Team
Enter/Modify Structure Information
Enter/Modify Maintenance & Repair Data
Change an Inspection Date
Add/Edit River/Waterway
  
```

Use arrow keys to position; ENTER to enter/edit Inspection Data; ESC to Exit

Select **Change an Inspection Date**, option 5. The **Select Waterway** screen will be displayed. This is a list of available rivers and waterways found in the current division/district that have associated inspection data entered.

To select a river or waterway use the arrow keys or the mouse to move the highlight bar to the desired river/waterway in the list. Press **ENTER** or click the mouse button to confirm the selection.

CHANGE		ED40
INSP DATE	Division: Southwestern Division	
Select	District: Little Rock	
Waterway		F1 - HELP

```

===== Rivers/Waterways =====
ARKANSAS RIVER, DARDANELLE
===== Enter ESC =====
  
```

Use arrow keys or mouse to position; ENTER to select

After the waterway is selected the **Select Inspection Date** list will be displayed. This is a list of one or more inspection dates entered for structures on the given waterway.

CHANGE		ED41
INSP DATE	Division: Southwestern Division	
Select	District: Little Rock	
Insp Date		F1 - HELP

```

===== Inspection Dates =====
01/01/1997
===== Enter ESC =====
  
```

Select a listed INSPECTION DATE to Change.

Use arrow keys or mouse to position; ENTER to select

After the inspection date has been selected, the Enter Change Inspection Date box is displayed. Enter a new inspection date in the field provided.

CHANGE	Division: Southwestern Division	ED42
INSP DATE	District: Little Rock	
		F1 - HELP

Enter Change Inspection Date
Old Inspection Date: 01/01/1997
New Inspection Date: 01/01/1997
Press Ctrl-ENTER to Store
ESC Ctl-Enter

Enter New Inspection Date; Press Ctrl-ENTER to Store; ESC to Exit

Press **Ctrl-ENTER** to display a confirmation box.

CHANGE	Division: Southwestern Division	ED42
INSP DATE	District: Little Rock	
		F1 - HELP

Confirmation: y/n
Change 01/01/1997 to 01/06/1997 [Y/N] ? [N]
Yes No ESC

Press **Y** or click the Yes label to change the inspection date. Press **N** or **ESC** or click the No or ESC labels if the indicated change is not needed.

5 Reports and Forms

This chapter will discuss the methods of generating reports based on structure inventory, inspection, and M&R cost analysis data that was entered previously. (Procedures for entering this data are detailed in Chapter 3, **Inventory**, and Chapter 4, **Inspection**.) Instructions for generating blank and filled-in inspection forms and fixed CI & RPI scale definitions are also presented in this chapter.

Inspection Data Reports

Select **Database Related Reports**, option 2 from the Main Menu. The Main Report Menu screen will appear.

REPORT MENU	Division: Southwestern Division District: Little Rock	RM0 F1 - HELP
----------------	--	----------------------

==== Main Report Menu =====
Inspection Data Reports
Maintenance & Repair Reports
Forms & Scales Reports

Use arrow keys to position; ENTER for Inspection Report Menu; ESC to Exit

Select **Inspection Data Reports**, option 1 from this menu. The Inspection Data Report Menu will then be displayed.

INSPECT DATA REPORT MENU	Division: Southwestern Division District: Little Rock	RM1 F1 - HELP
-----------------------------------	--	----------------------

==== Inspection Data Report Menu =====
Inspection Data Report
Condition Index Report
List Inspection Dates
List Inspection Team Information
Structure Information Report
Inspection Forms w/ Data

Arrow keys - position; ENTER - generate Inspection Data Report; ESC - Exit

The following sections will discuss the individual options on this menu.

Inspection Data Report

Select **Inspection Data Report**, option 1 from the Inspection Data Report Menu to display the Report Generation Parameters form for the Inspection Data Report. The report parameters and their use are as follows:

```

=====Enter Report Generation Parameters=====
Report:      Inspection Data Report
Division:    Southwestern Division
District:    Little Rock

Start Date:  01/01/1900  End Date:  01/06/1997  All Dates in Range
              (mm/dd/yyyy)              (mm/dd/yyyy)  (SPACE to Change)

Condition Index Range:      0  to  100  (0 to 100)

Repair Priority Index Range: 1    to  5    (1,2A,2B,3,4,5)

Navigation Mile From:      0.00  to  9999.99      Bank: Both

Sort Option:                                5 Inspection Date/Ascending

Output [Printer/Screen/File]:      Screen      (SPACE to Change)

Press Ctrl-ENTER to Store

=====ESC  Ctl-Enter=====

```

Start Date: This is the earliest inspection date allowed in the set of reports.

End Date: This is the latest inspection date allowed in the set of reports.

**All Dates in Range/
Latest Date Only:** This determines whether multiple inspections for the same structure are allowed in the set of reports. All Dates in Range allows the report to include multiple inspections of a structure if the individual inspection dates fall within the Start/End Date range. Latest Date Only allows only the most recent inspection date in the set of reports in the given range.

CI Range: This allows only those inspections with CI values in the selected range to be in the set of reports.

RPI Range: This allows only those inspections with RPI values in the selected range to be in the set of reports.

Navigation Mile: This allows only those inspections of structures whose navigation mile value is within the stated range to be in the set of reports.

Bank: This allows only those inspections of structures whose bank designation matches the parameter selection (i.e., Bank: Right allows only right bank structures; Bank: Left allows only left bank structures; Bank: Both would allow either bank; Bank: Center would allow only center structures).

Sort Option: Possible sort options for this report are:

- Condition Index/Ascending

- Condition Index/Descending
- RPI/Ascending
- RPI/Descending
- Inspection Date/Ascending
- Inspection Date/Descending
- Structure ID/Ascending
- Structure ID/Descending

Inspection Date/Ascending is the default setting.
Only one option may be selected.

Output: This determines where the report output is directed. The options are Screen, Printer, or File. The default setting is Screen. Selecting File requires the user to enter a disk file name.

After the report parameters are entered the user presses **Ctrl-ENTER** to generate the report. The entered parameters are compared to the stored data. If no inspections fall within the various ranges and choices, a message is displayed. If more than one set of inspection data satisfies the criteria, it will display a list of valid waterways. An example is given below.

REPORT	Division: Southwestern Division	RPI
Select	District: Little Rock	
Waterways Report:	Inspection Data Report	F1 - HELP

-----River/Waterways-----
ARKANSAS RIVER, DARDANELLE
Space To Select ===== Enter ESC

Select one or more
RIVER/WATERWAYS to
generate a report.

Pressing CTRL-ENTER
Toggles all entries
off or on.

Tag multiple entries with SPACE; Select one entry with ENTER. ESC-Quit

The user selects one or more waterways. A list of one or more structures on the selected waterways that match the selection parameters is displayed. The user then selects one or more of these structures to generate the report. An example structure list is given below.

REPORT	Division: Southwestern Division	RPI
Select	District: Little Rock	
Structures Report:	Inspection Data Report	F1 - HELP

ARKANSAS RIVER, DARDANELLE	D282.3R	DIK229.65R
Space To Select =====	Enter	ESC

Pressing CTRL-ENTER toggles all entries off or on.
Tag multiple entries with SPACE; Select one entry with ENTER. ESC-Quit

The generated report with the selected structures is sent to the specified output device. An example of the report is given in Appendix A. (Note that Appendix B presents sample forms and Appendix C defines common dike nomenclature.)

Condition Index Report

Select **Condition Index Report**, option 2 from the Inspection Data Report Menu to display the following screen. This is the Report Generation Parameters form for the Condition Index Report. The report parameters and their use are as follows:

```
=====Enter Report Generation Parameters=====
Report:      Condition Index Report                                RPM1
Division:    Southwestern Division
District:    Little Rock

Start Date:  01/01/1900  End Date:  01/06/1997  All Dates in Range
              (mm/dd/yyyy)              (mm/dd/yyyy)  (SPACE to Change)

Condition Index Range:          0  to  100  (0 to 100)

Repair Priority Index Range:    1    to  5    (1,2A,2B,3,4,5)

Navigation Mile From:          0.00  to  9999.99      Bank: Both

Sort Option:                    1 Condition Index/Ascending

Output [Printer/Screen/File]:   Screen  (SPACE to Change)

Press Ctrl-ENTER to Store

=====ESC  Ctrl-Enter=====
```

Start Date: This is the earliest inspection date allowed in the set of reports.

End Date: This is the latest inspection date allowed in the set of reports.

**All Dates in Range/
Latest Date Only:** This determines whether multiple inspections for the same structure are allowed in the set of reports. All Dates in Range allows the report to include multiple inspections of a structure if the individual inspection dates fall within the Start/End Date range. Latest Date Only allows only the most recent inspection date in the set of reports in the given range.

CI Range: This allows only those inspections with CI values in the selected range to be in the set of reports.

RPI Range: This allows only those inspections with RPI values in the selected range to be in the set of reports.

Navigation Mile: This allows only those inspections of structures whose navigation mile value is within the stated range to be in the set of reports.

Bank: This allows only those inspections of structures whose bank designation matches the parameter selection (i.e., Bank: Right allows only right bank structures; Bank: Left allows only left bank structures; Bank: Both would allow either bank; Bank: Center would allow only center structures).

Sort Option: Possible sort options for this report are:

- Condition Index/Ascending
- Condition Index/Descending
- RPI/Ascending
- RPI/Descending
- Inspection Date/Ascending
- Inspection Date/Descending
- Structure ID/Ascending
- Structure ID/Descending

Condition Index/Ascending is the default setting. Only one option may be selected.

Output: This determines where the report output is directed. The options are Screen, Printer, or File. The default setting is Screen. Selecting File requires the user to enter a disk file name.

After the report parameters are entered the user presses **Ctrl-ENTER** to generate the report. The entered parameters are compared to the stored data. If no inspections fall within the various ranges and choices, a message is displayed. If more than one set of inspection data satisfies the criteria, it will display a list of valid waterways. An example is given below.

REPORT	Division:	Southwestern Division	RPI
Select	District:	Little Rock	
Waterways	Report:	Condition Index Report	F1 - HELP

```
=====River/Waterways=====
[ ARKANSAS RIVER, DARDANELLE
  Space To Select ===== Enter  ESC ]
```

Select one or more
RIVER/WATERWAYS to
generate a report.

Pressing CTRL-ENTER
Toggles all entries
off or on.

.Tag multiple entries with SPACE; Select one entry with ENTER. ESC-Quit

The user selects one or more waterways. A list of one or more structures on the selected waterways that match the selection parameters is displayed. The user then selects one or more of these structures to generate the report. An example structure list is given below.

REPORT	Division: Southwestern Division	RP1
	District: Little Rock	
Select		
Structures Report:	Condition Index Report	F1 - HELP

ARKANSAS RIVER, DARDANELLE	D282.3R	DIK229.65R
Space To Select		Enter ESC

Pressing CTRL-ENTER toggles all entries off or on.
 Tag multiple entries with SPACE; Select one entry with ENTER. ESC-Quit

The generated report with the selected structures is sent to the output device selected in the output parameter. An example of the report is given in Appendix A.

List Inspection Dates

Select **List Inspection Dates**, option 3 from the Inspection Data Report Menu to display the following screen. This is the Report Generation Parameters form for List Inspection Dates. The report parameters and their use are as follows:

REPORT	Division: Southwestern Division	RP3
	District: Little Rock	
Enter Report Generation Parameters		
Report:	List Inspection Dates	RPM3
Division:	Southwestern Division	
District:	Little Rock	
Start Date:	01/01/1900	End Date: 01/06/1997
	(mm/dd/yyyy)	(mm/dd/yyyy)
Sort Option:	1 Inspection Date/Ascending	
Output [Printer/Screen/File]:	Screen	(SPACE to Change)
Press Ctrl-ENTER to store		
ESC Ctl-Enter		

Enter Report Generation Parameters; Ctrl-ENTER to store; ESC to Exit

Start Date: This is the earliest inspection date allowed in the set of reports.

End Date: This is the latest inspection date allowed in the set of reports.

Sort Option: Possible sort options for this report are:

- Inspection Date/Ascending
- Inspection Date/Descending

Inspection Date/Ascending is the default setting.
 Only one option may be selected.

Output: This determines where the report output is directed.

The options are Screen, Printer, or File. The default setting is Screen. Selecting File requires the user to enter a disk file name.

After the report parameters are entered the user presses **Ctrl-ENTER** to generate the report.

The entered parameters are compared to the stored data. If no inspections fall within the various ranges and choices, a message is displayed. If more than one set of inspection data satisfies the criteria, it will display a list of valid waterways. Select one or more waterways to display a list of structures. Select one or more structures to generate the list of Inspection Dates. The generated report is output to the indicated device. Pressing **ESC** during the selection process will return the user to the Inspection Data Reports Menu with no output generated.

List Inspection Team Information

Select **List Inspection Team Information**, option 4 from the Inspection Data Report Menu to display the following. This is the Report Generation Parameters form for List Inspection Team Information. The report parameters and their use are as follows:

REPORT	Division: Southwestern Division	RP4
	District: Little Rock	
-----Enter Report Generation Parameters-----		
		RPM3
Report:	Inspection Team Information	
Division:	Southwestern Division	
District:	Little Rock	
Start Date:	01/01/1900	End Date: 01/06/1997
	(mm/dd/yyyy)	(mm/dd/yyyy)
Sort Option:	1 Inspection Date/Ascending	
Output [Printer/Screen/File]:	Screen (SPACE to Change)	
Press Ctrl-ENTER to store		
-----ESC Ctrl-Enter-----		

Enter Report Generation Parameters; Ctrl-ENTER to store; ESC to Exit

Start Date: This is the earliest inspection date allowed in the set of reports.

End Date: This is the latest inspection date allowed in the set of reports.

Sort Option: Possible sort options for this report are:

- Inspection Date/Ascending
- Inspection Date/Descending

Inspection Date/Ascending is the default setting.
Only one option may be selected.

Output: This determines where the report output is directed. The options are Screen, Printer, or File. The default setting is Screen. Selecting File requires the user to enter a disk file name.

After the report parameters are entered the user presses **Ctrl-ENTER** to generate the report.

The entered parameters are compared to the stored data. If no inspections fall within the various ranges and choices, a message is displayed. If more than one set of inspection data satisfies the criteria, it will display a list of valid waterways. Select one or more waterways to display a list of structures. Then select one or more structures to generate the list of Inspection Team Information. The generated report is output to the indicated device. Pressing **ESC** during the selection process will return the user to the Inspection Data Reports Menu with no output generated.

Structure Information Report

Select **Structure Information Report**, option 5 from the Inspection Data Report Menu to display the following screen. This is the Report Generation Parameters form for the Structure Information Report. The report parameters and their use are as follows:

REPORT	Division: Southwestern Division	RP5
	District: Little Rock	
-----Enter Report Generation Parameters-----		
	Report: Structure Information Report	RPM2
	Division: Southwestern Division	
	District: Little Rock	
Navigation Mile from:	0.00 to 9999.99	Bank: Both
Sort Option:	1 Structure ID/Ascending	
Output [Printer/Screen/File]:	Screen	(SPACE to Change)
Press Ctrl-ENTER to store		
		ESC Ctrl-Enter
Enter Report Generation Parameters; Ctrl-Enter to store; ESC to Exit		

Navigation Mile: This allows only those inspections of structures whose navigation mile value is within the stated range to be in the set of reports.

Bank: This allows only those inspections of structures whose bank designation matches the parameter selection (i.e., Bank: Right allows only right bank structures; Bank: Left allows only left bank

Sort Option: structures; Bank: Both would allow either bank;
Bank: Center would allow only center structures).
Possible sort options for this report are:

- Structure ID/Ascending
- Structure ID/Descending

Structure ID/Ascending is the default setting. Only one option may be selected.

Output: This determines where the report output is directed. The options are Screen, Printer, or File. The default setting is Screen. Selecting File requires the user to enter a disk file name.

After the report parameters are entered the user presses **Ctrl-ENTER** to generate the report. The entered parameters are compared to the stored data. If no inspections fall within the various ranges and choices, a message is displayed. If more than one set of inspection data satisfies the criteria, it will display a list of valid waterways. Select one or more waterways to display a list of structures. Select one or more structures to generate the Structure Information Report. The report with the selected structure(s) is output to the indicated device. Pressing **ESC** during the selection process will return the user to the Inspection Data Reports Menu with no output generated.

Inspection Forms w/ Data

Select **Inspection Forms w/ Data**, option 6 from the Inspection Data Report Menu to display the following screen. This is the Report Generation Parameters form for the Inspection Forms w/ Data. The report parameters and their use are as follows:

```

=====
REPORT      Division: Southwestern Division      RP9
            District: Little Rock
=====Enter Report Generation Parameters=====
Report:      Inspection Forms w/ Data              RPM2
Division:    Southwestern Division
District:    Little Rock

Navigation Mile from:  0.00 to  9999.99      Bank: Both
Sort Option:                                     1 Structure ID/Ascending
Output [Printer/Screen/File]:  Screen      (SPACE to Change)
Press Ctrl-ENTER to store

=====ESC  Ctl-Enter
Enter Report Generation Parameters; Ctrl-Enter to store; ESC to Exit
=====
```

Navigation Mile: This allows only those inspections of structures whose navigation mile value is within the stated range to be in the set of reports.

Bank: This allows only those inspections of structures whose bank designation matches the parameter selection (i.e., Bank: Right allows only right bank structures; Bank: Left allows only left bank structures; Bank: Both would allow either bank; Bank: Center would allow only center structures).

Sort Option: Possible sort options for this report are:

- Structure ID/Ascending
- Structure ID/Descending

Structure ID/Ascending is the default setting. Only one option may be selected.

Output: This determines where the report output is directed. The options are Screen, Printer, or File. The default setting is Screen. Selecting File requires the user to enter a disk file name.

After the report parameters are entered the user presses **Ctrl-ENTER** to generate the report. The entered parameters are compared to the stored data. If no inspections fall within the various ranges and choices, a message is displayed. If more than one set of inspection data satisfies the criteria, it will display a list of valid waterways. Select one or more waterways to display a list of structures. Then select one or more structures to generate inspection forms with filled-in data. The selected forms are output to the indicated device. Pressing **ESC** during the selection process will return the user to the Inspection Data Reports Menu with no output generated.

Maintenance and Repair Reports

Select **Database Related Reports**, option 2 from the Main Menu. The Main Report Menu will appear.

REPORT MENU	Division: Southwestern Division District: Little Rock	RM0 F1 - HELP
----------------	--	----------------------

Main Report Menu Inspection Data Reports Maintenance & Repair Reports Forms & Scales Reports
--

Use arrow keys to position; ENTER for Inspection Report Menu; ESC to Exit

Select **Maintenance & Repair Reports**, option 2 on the Main Report Menu to display the M&R Report Menu as shown here.

M & R REPORT MENU	Division: Southwestern Division	RM10
	District: Little Rock	
		F1 - HELP

Maintenance & Repair Reports	nu
M & R Cost Analysis Report	rts
M & R Detailed Data Report	Reports
Forms & Scales Reports	

Use arrow keys to position; ENTER to generate M&R Cost Report; ESC to Exit

The following two sections discuss the options on this menu. -

M & R Cost Analysis Report

Select **M&R Cost Analysis Report**, option 1 from the M&R Report Menu to display the following screen. This is the Report Generation Parameters form for the M&R Cost Analysis Report. The report parameters and their use are as follows:

Enter Report Generation Parameters		RPM1
Report:	M & R Cost Analysis Report	
Division:	Southwestern Division	
District:	Little Rock	
Start Date:	01/01/1900	End Date: 01/06/1997 All Dates in Range (SPACE to Change)
	(mm/dd/yyyy)	(mm/dd/yyyy)
Condition Index Range:	0 to 100 (0 to 100)	
Repair Priority Index Range:	1 to 5 (1,2A,2B,3,4,5)	
Navigation Mile From:	0.00 to 9999.99	Bank: Both
Sort Option:	7 Structure ID/Ascending	
Output [Printer/Screen/File]:	Screen	(SPACE to Change)
Press Ctrl-ENTER to Store		
		ESC Ctl-Enter

Start Date: This is the earliest inspection date allowed in the set of reports.

End Date: This is the latest inspection date allowed in the set of reports.

**All Dates in Range/
Latest Date Only:** This determines whether multiple inspections for the same structure are allowed in the set of reports. All Dates in Range allows the report to include multiple inspections of a structure if the individual inspection dates fall within the Start/End Date range. Latest Date Only allows only the most recent inspection date in the set of reports in the

given range.

CI Range:	This allows only those inspections with CI values in the selected range to be in the set of reports.
RPI Range:	This allows only those inspections with RPI values in the selected range to be in the set of reports.
Navigation Mile:	This allows only those inspections of structures whose navigation mile value is within the stated range to be in the set of reports.
Bank:	This allows only those inspections of structures whose bank designation matches the parameter selection (i.e., Bank: Right allows only right bank structures; Bank: Left allows only left bank structures; Bank: Both would allow either bank; Bank: Center would allow only center structures).
Sort Option:	<p>Possible sort options for this report are:</p> <ul style="list-style-type: none">• Condition Index/Ascending• Condition Index/Descending• RPI/Ascending• RPI/Descending• Inspection Date/Ascending• Inspection Date/Descending• Structure ID/Ascending• Structure ID/Descending <p>Structure ID/Ascending is the default setting. Only one option may be selected.</p>
Output:	This determines where the report output is directed. The options are Screen, Printer, or File. The default setting is Screen. Selecting File requires the user to enter a disk file name.

After the report parameters are entered the user presses **Ctrl-ENTER** to generate the report. The entered parameters are compared to the stored data. If no inspections fall within the various ranges and choices, a message is displayed. If more than one set of inspection data satisfies the criteria, it will display a list of valid waterways. An example is given below.

REPORT	Division: Southwestern Division	RP1
	District: Little Rock	
Select		
Waterways Report:	M&R Cost Analysis Data Report	F1 - HELP

River/Waterways		
ARKANSAS RIVER, DARDANELLE		
Space To Select	=====	Enter ESC

Select one or more
RIVER/WATERWAYS to
generate a report.

Pressing CTRL-ENTER
Toggles all entries
off or on.

Tag multiple entries with SPACE; Select one entry with ENTER. ESC-Quit

The user selects one or more waterways. A list of one or more structures on the selected waterways that match the selection parameters is displayed. The user then selects one or more of these structures to generate the report. An example structure list is given below.

REPORT	Division: Southwestern Division	RP1
	District: Little Rock	
Select		
Structures Report:	M&R Cost Analysis Data Report	F1 - HELP

ARKANSAS RIVER, DARDANELLE	D282.3R	DIK229.65R
Space To Select	=====	Enter ESC

Pressing CTRL-ENTER toggles all entries off or on.
Tag multiple entries with SPACE; Select one entry with ENTER. ESC-Quit

The generated report with the selected structures is sent to the output device selected in the output parameter. An example of the report is given in Appendix A.

M & R Detailed Data Report

Select **M&R Detailed Data Report**, option 2 from the M&R Report Menu to display the following screen. This is the Report Generation Parameters form for the M&R Detailed Data Report. The report parameters and their use are as follows:

```

=====Enter Report Generation Parameters=====
Report:      M & R Detailed Cost Analysis Report      RPM1
Division:    Southwestern Division
District:    Little Rock

Start Date:  01/01/1900  End Date:  01/06/1997  All Dates in Range
              (mm/dd/yyyy)              (mm/dd/yyyy)  (SPACE to Change)

Condition Index Range:      0  to  100  (0 to 100)

Repair Priority Index Range:  1  to  5    (1,2A,2B,3,4,5)

Navigation Mile From:      0.00  to  9999.99    Bank: Both

Sort Option:                                7 Structure ID/Ascending

Output [Printer/Screen/File]:      Screen    (SPACE to Change)

Press Ctrl-ENTER to Store

=====ESC  Ctl-Enter=====

```

Start Date: This is the earliest inspection date allowed in the set of reports.

End Date: This is the latest inspection date allowed in the set of reports.

**All Dates in Range/
Latest Date Only:** This determines whether multiple inspections for the same structure are allowed in the set of reports. All Dates in Range allows the report to include multiple inspections of a structure if the individual inspection dates fall within the Start/End Date range. Latest Date Only allows only the most recent inspection date in the set of reports in the given range.

CI Range: This allows only those inspections with CI values in the selected range to be in the set of reports.

RPI Range: This allows only those inspections with RPI values in the selected range to be in the set of reports.

Navigation Mile: This allows only those inspections of structures whose navigation mile value is within the stated range to be in the set of reports.

Bank: This allows only those inspections of structures whose bank designation matches the parameter selection (i.e., Bank: Right allows only right bank structures; Bank: Left allows only left bank structures; Bank: Both would allow either bank; Bank: Center would allow only center structures).

Sort Option:

Possible sort options for this report are:

- Condition Index/Ascending
- Condition Index/Descending
- RPI/Ascending
- RPI/Descending
- Inspection Date/Ascending
- Inspection Date/Descending
- Structure ID/Ascending
- Structure ID/Descending

Structure ID/Ascending is the default setting. Only one option may be selected.

Output:

This determines where the report output is directed. The options are Screen, Printer, or File. The default setting is Screen. Selecting File requires the user to enter a disk file name.

After the report parameters are entered the user presses **Ctrl-ENTER** to generate the report. The entered parameters are compared to the stored data. If no inspections fall within the various ranges and choices, a message is displayed. If more than one set of inspection data satisfies the criteria, it will display a list of valid waterways. An example is given below.

REPORT	Division:	Southwestern Division	RPI
Select	District:	Little Rock	
Waterways	Report:	M&R Detailed Cost Analysis Data Report	F1 - HELP

```
=====River/Waterways=====
ARKANSAS RIVER, DARDANELLE
Space To Select ===== Enter  ESC
```

Select one or more
RIVER/WATERWAYS to
generate a report.

Pressing CTRL-ENTER
Toggles all entries
off or on.

Tag multiple entries with SPACE; Select one entry with ENTER. ESC-Quit

The user selects one or more waterways. A list of one or more structures on the selected waterways that match the selection parameters is displayed. The user then selects one or more of these structures to generate the report. An example structure list is given below.

REPORT	Division:	Southwestern Division	RPI
Select	District:	Little Rock	
Structures	Report:	M&R Detailed Cost Analysis Data Report	F1 - HELP

```
=====
ARKANSAS RIVER, DARDANELLE      D282.3R      DIK229.65R
Space To Select ===== Enter  ESC
```

Pressing CTRL-ENTER toggles all entries off or on.
Tag multiple entries with SPACE; Select one entry with ENTER. ESC-Quit

The generated report with the selected structures is sent to the output device selected in the output parameter. An example of the report is given in Appendix A.

Forms and Scales Report

Select **Database Related Reports**, option 2 from the Main Menu. The Main Report Menu will appear.

REPORT MENU	Division: Southwestern Division District: Little Rock	RM0 F1 - HELP
----------------	--	----------------------

==== Main Report Menu =====
Inspection Data Reports
Maintenance & Repair Reports
Forms & Scales Reports
=====

Use arrow keys to position; ENTER for Inspection Report Menu; ESC to Exit

Select **Forms and Scales Reports**, option 3 from the Main Report Menu. The Forms and Scales Report Menu will appear.

FORMS REPORT MENU	Division: Southwestern Division District: Little Rock	RM20 F1 - HELP
-------------------------	--	-----------------------

==== Forms & Scales Report Menu =====
Condition Index Calculation Information
Repair Priority Index (RPI) Information
Print Blank Inspection Forms
=====

Use arrow keys to position; ENTER to display CI Calculation Info; ESC to Exit

The following three sections discuss the options available on the Forms and Scales Report Menu.

Condition Index Calculation Information

Select **Condition Index Calculation Information**, option 1 from the Forms & Scales Report Menu to display the Report Generation Parameters form for Condition Index Calculation Information. The report parameters and their use are as follows:

PRINT	Division: Southwestern Division	PC1
CI RATING	District: Little Rock	
INFO	Report: Condition Index Rating Information	F1 - HELP

Enter Form Printing Data

Number of Copies to Print: 1

Output [Printer/Screen/File]: Screen

Press Ctrl-ENTER to Store

ESC Ctl-Enter

Enter Form Printing Data; Ctrl-ENTER to store; ESC to Exit

- Number of Copies:** This is the number of copies of the CI Rating Information Scale to print at this time. The default value is 1. It may be set to any value from 1 to 999.
- Output:** This determines where the report output is directed. The options are Screen, Printer, or File. The default setting is Screen. Selecting File requires the user to enter a disk file name.

After the user has entered any parameters needed on the form, **Ctrl-ENTER** generates the number of copies of the CI Scale indicated to the output device specified. Pressing **ESC** returns the user to the Forms & Scales Menu without generating any output. An example CI Rating Information Scale is presented in Appendix B.

Repair Priority Index (RPI) Information

Select **Repair Priority Index (RPI) Information**, option 2 from the Forms & Scales Report Menu to display the Report Generation Parameters form for Repair Priority Index (RPI) Information. The report parameters and their use are as follows:

PRINT	Division: Southwestern Division	PC1
RPI RATING	District: Little Rock	
INFO	Report: Repair Priority Index (RPI) Information	F1 - HELP

Enter Form Printing Data

Number of Copies to Print: 1

Output [Printer/Screen/File]: Screen

Press Ctrl-ENTER to Store

ESC Ctl-Enter

Enter Form Printing Data; Ctrl-ENTER to store; ESC to Exit

- Number of Copies:** This is the number of copies of the blank inspection form to print at this time. The default value is 1. It may be set to any value from 1 to 999.

Output: This determines where the report output is directed. The options are Screen, Printer, or File. The default setting is Screen. Selecting File requires the user to enter a disk file name.

After the user has entered any parameters needed on the form, **Ctrl-ENTER** generates the number of forms indicated to the output device specified. Pressing **ESC** returns the user to the Forms & Scales Menu without generating any forms. An example blank inspection form is presented in Appendix B.

Print Blank Inspection Forms

Select **Print Blank Inspection Forms**, option 3 from the Forms & Scales Report Menu to display the Report Generation Parameters form for Print Blank Inspection Forms. The report parameters and their use are as follows:

PRINT BLANK FORMS	Division:	Southwestern Division	PC1
	District:	Little Rock	
	Report:	Print Blank Inspection Forms	F1 - HELP

Enter Form Printing Data	
Number of Copies to Print:	1
Output [Printer/Screen/File]:	Printer
Press Ctrl-ENTER to Store	
ESC Ctl-Enter	

Enter Form Printing Data; Ctrl-ENTER to store; ESC to Exit

Number of Copies: This is the number of copies of the blank inspection form to print at this time. The default value is 1. It may be set to any value from 1 to 99.

Output: This determines where the report output is directed. The options are Screen, Printer, or File. The default setting is Printer. Selecting File requires the user to enter a disk file name.

After the user has entered any parameters needed on the form, **Ctrl-ENTER** generates the number of forms indicated to the output device specified. Pressing **ESC** returns the user to the Forms & Scales Menu without generating any forms. An example blank inspection form is presented in Appendix B.

6 System Management

This chapter discusses the options available through the System Management Menu. These options can be used to select a new district, edit default system values, and export/import data from other disks.

Select **System Management**, option 3 from the Main Menu. The System Management Menu will appear.

MANAGE SYSTEM MENU	Division: Southwestern Division District: Little Rock	SM1 F1 - HELP
--------------------------	--	----------------------

System Management Menu
Reselect District/Division
Edit Maintenance & Repair Cost Data Defaults
Edit System Default Values
Copy Data to Disk
Get Data From Disk

Use arrow keys to position; ENTER to reselect Division/District; ESC to Exit

The following sections discuss the individual options on this menu.

Reselect District/Division

Select **Reselect District/Division**, option 1 from the System Management Menu to display the district/division options.

SELECT DIV/DIST	Division: Southwestern Division District: Little Rock	SD1 F1 - HELP
--------------------	--	----------------------

USACE Divisions/Districts			
DIV	DIST	DIVISION NAME	DISTRICT NAME
LMV		Lower Mississippi Valley	
LMV	LMK	Lower Mississippi Valley	Vicksburg
LMV	LMM	Lower Mississippi Valley	Memphis
LMV	LMN	Lower Mississippi Valley	New Orleans
LMV	LMS	Lower Mississippi Valley	St. Louis
MRD		Missouri River Division	
MRD	MRK	Missouri River Division	Kansas City
MRD	MRO	Missouri River Division	Omaha
NAD		North Atlantic Division	
NAD	NAB	North Atlantic Division	Baltimore
NAD	NAN	North Atlantic Division	New York
NAD	NAO	North Atlantic Division	Norfolk
Ins	Del	Enter ESC	

Use arrow keys or mouse to position; ENTER to select

When the system is installed the user is asked to select a division/district. This selection limits the user to a certain set of waterways assigned to the selected district. For various reasons the user may want to input or access data associated with waterways in other districts. To do this the user can at any time reselect the current district. By selecting option 1 on the System Management Menu the user

can use the arrow keys or mouse to position the highlight bar to the desired district/division (multiple pages are available). Press ENTER or double click the mouse to confirm the indicated district/division. Data entered into the system while other districts were selected is still stored in the system and can be accessed again when those districts are selected.

The new district/division selection is displayed in the top information box.

Edit M & R Cost Data Defaults

Select **Edit Maintenance & Repair Cost Data Defaults**, option 2 on the System Management Menu to display the M&R Cost Data Defaults screen.

Enter Maintenance & Repair Cost Data Defaults			MR1
MATERIAL/LABOR TYPE	UNIT(S)	UNIT COST(\$)	MRDF
Waterborne Fill	ton(s)	0.00	
Land Borne Fill	ton(s)	0.00	
		0.00	
		0.00	
		0.00	
		0.00	
		0.00	
		0.00	
		0.00	
		0.00	

Data entered in the above fields is copied into the corresponding fields when a Maintenance and Repair record is created for a Structure. Changing the above data does not alter M&R records which have already been created.

Press Ctrl-ENTER to store.

Use arrow keys to position; Ctrl-ENTER to store; ESC to Exit

Up to 10 types of material or labor can be entered on the above form. Their associated unit of measure and the unit cost can be entered in the appropriate columns. Values stored in the above form are automatically available when the user creates a new M&R Cost Analysis data record. The data stored in this form may be changed at any time. Changes to this data will not alter previously stored M&R Cost Analysis data.

Remember to press **Ctrl-ENTER** to store any changes you make.

Edit System Default Values

Select **Edit System Default Values**, option 3 on the System Management Menu to set the Text Editor and the Printer Port.

```

=====Enter System Default Information=====
Application Name:  DIKE_CI
Application Title:

Division Name:    SWD Southwestern Division
District Name:    SWL Little Rock

Text Editor:  EDIT

The Editor is used to enter REMARKS.  The default is assumed to be the
DOS EDIT program (Version 3.0 or later).  Any ASCII Text Editor (not
a wordprocessor) can be used.  To use a different Text Editor, enter the
path and name of the Editor (such as C:\MyApps\MyEdit) above.

Printer Port:  LPT1

Press Ctrl-ENTER to Store.

=====ESC  Ctl-Enter
Use arrow keys to position; Ctrl-ENTER to store; ESC to Exit

```

Text Editor

The Text Editor is a program that is used by DIKE_CI to enter text comments or remarks. This program is assumed to be the DOS EDIT program (Version 3.0 or later). Any ASCII Text Editor (not a word processor) that takes a filename as a parameter on the command line can be used for this purpose. To use a different Text Editor to enter remarks in DIKE_CI, type the full path and name of the Editor program in the Text Editor data field (e.g., C:\UTILS\MYEDITOR). If desired, the Text Editor can be changed at any time by selecting the System Management Menu and the Edit System Default Values option and entering a new value for the Text Editor data field.

Printer Port

The Printer Port is a communications channel in your PC that is connected to a printer. Typically this is a port labelled LPT1 (Line Printer 1). A pop-up menu with the choices LPT1, LPT2, LPT3, COM1, COM2, COM3, COM4 is displayed at the Printer Port data field. Move the highlight bar with the arrow keys (or the mouse) and press ENTER (or click the mouse) to select the appropriate port for your printer. If necessary the Printer Port may be changed at any time by selecting the System Management Menu and Edit System Default Values option and reselecting one of the above ports.

Remember to press **Ctrl-ENTER** to store any changes you make.

Copy Data to Disk

Select **Copy Data to Disk**, option 4 on the System Management Menu to display the Data Transfer screen below.

SYSTEM	Division: Southwestern Division	SM1
MANAGE	District: Little Rock	
MENU		F1 - HELP

Enter Data Transfer

Copy Data to Disk.
CAUTION: This WILL OVERWRITE data on the Disk.

Disk Drive: A:

Enter the Drive as A:, B:, etc.
 You may add a path (e.g., A:\19950101\DATA).

Press Ctrl-ENTER to Store.

ESC Ctrl-Enter

Enter Disk Drive and/or Path; ESC to Exit

Currently entered data can be copied on diskette with this option. Data can be copied to hard drives also by entering a pathname with the disk drive. The user enters a disk drive letter followed by ':' with or without a pathname. Press **Ctrl-ENTER** to display a confirmation box. If the user confirms the action, the current data files are copied to the selected disk drive at the root (if no pathname is given) or in the indicated subdirectory. The subdirectory will be created if it does not already exist. As noted in the box, **CAUTION: This WILL OVERWRITE data on the disk.** Data previously stored in the selected subdirectory will also be overwritten.

Get Data from Disk

Select **Get Data from Disk**, option 5 on the System Management Menu to display the Data Transfer screen shown below.

SYSTEM	Division: Southwestern Division	SM1
MANAGE	District: Little Rock	
MENU		F1 - HELP
-----Enter Data Transfer-----		
Get Data from Disk.		
CAUTION: This WILL OVERWRITE your current data.		
Disk Drive: A:		
Enter the Drive as A:, B:, etc.		
You may add a path (e.g., A:\19950101\DATA).		
Press Ctrl-ENTER to Store.		
-----ESC Ctrl-Enter-----		
Enter Disk Drive and/or Path; ESC to Exit		

Previously stored data or data from other users can replace currently entered data with this option. Data can be copied from hard drives also by entering a pathname with the disk drive. The user enters a disk drive letter followed by ':' with or without a pathname. Press **Ctrl-ENTER** to display a confirmation box. If the user confirms the action, the data files stored on the indicated drive are copied to the current working disk drive in the **DIKE_CI** subdirectory. As noted in the box, **CAUTION: This WILL OVERWRITE your current data.** Before using this option, be sure that you have backup copies of the data being overwritten.

Appendix A: DIKE_CI Report

Appendix A: DIKE_CI Reports

Appendix A: DIKE_CI Reports

Condition Index Report

Appendix A: DIKE_CI Reports

Condition Index Report

01/27/1997 Page 1

Sorted by: Condition Index/Ascending CI: 0 to 100 RPI: 1 to 5
 Insp Date: 01/01/1900 to 01/27/1997 (All Dates in Range)
 Nav. Mile: 0.00 to 9999.99 Bank: Both
 Division: Southwestern Division
 District: Little Rock

River/Waterway	Structure ID	Standard ID	Insp Dt	CI	RPI
ARKANSAS RIVER, OZARK	D328.0L	BAF275.49L	01/1997	30	1
ARKANSAS RIVER, MORGAN P	D33.7R	DIK32.70L	10/1995	33	1
ARKANSAS RIVER, OZARK	R327.5L	REV275.05L	10/1996	33	1
ARKANSAS RIVER, MORGAN P	D33.8R	DIK32.90L	01/1997	40	2A
	D33.8R	DIK32.90L	10/1995	45	2A
	R40.2R	REV40.20L	01/1997	45	2A
ARKANSAS RIVER, DARDANEL	D286.3R	DIK234.00R	01/1997	50	2A
	D287.2R	DIK235.10R	10/1996	55	2A
ARKANSAS RIVER, MORGAN P	R34.0L	REV33.50L	01/1997	55	2B
ARKANSAS RIVER, OZARK	D327.5R	DIK275.00R	10/1996	55	2B
	D327.8L	DIK275.32L	01/1997	55	2B
ARKANSAS RIVER, DARDANEL	R286.8L	REV234.00L	01/1997	65	2B
	D282.3R	DIK229.65R	01/1997	70	3
ARKANSAS RIVER, MORGAN P	D33.7R	DIK32.70L	01/1997	70	4
ARKANSAS RIVER, OZARK	D327.7R	DIK275.25R	01/1997	70	3
ARKANSAS RIVER, DARDANEL	D283.6R	DIK230.50R	01/1997	75	3
	D286.0L	DIK234.75L	10/1996	75	3
ARKANSAS RIVER, MORGAN P	R34.0L	REV33.50L	10/1995	76	3
ARKANSAS RIVER, DARDANEL	D286.3L	DIK234.90L	10/1996	77	4
	D286.6R	DIK234.40R	10/1996	80	4
ARKANSAS RIVER, MORGAN P	R40.2R	REV40.20L	10/1995	85	4
ARKANSAS RIVER, OZARK	D327.2R	DIK274.78R	10/1996	85	4
	D327.3R	DIK274.88R	10/1996	90	4
	D327.6L	DIK275.15L	01/1997	95	4

Appendix A: DIKE_CI Reports

List Inspection Dates

Inspection Date Report

01/27/1997 Page 1

Sorted by: Inspection Date/Ascending
 Insp Date: 01/01/1900 to 01/27/1997
 Division: Southwestern Division
 District: Little Rock

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River/Waterway      Structure ID      Standard ID Insp Date
-----
ARKANSAS RIVER, MORGAN POINT D33.7R          DIK32.70L 10/22/1995
                        D33.8R          DIK32.90L 10/22/1995
                        R34.0L          REV33.50L 10/22/1995
                        R40.2R          REV40.20L 10/22/1995
ARKANSAS RIVER, DARDANELLE D286.0L          DIK234.75L 10/21/1996
                        D286.3L          DIK234.90L 10/21/1996
                        D286.6R          DIK234.40R 10/21/1996
                        D287.2R          DIK235.10R 10/21/1996
ARKANSAS RIVER, OZARK      D327.2R          DIK274.78R 10/23/1996
                        D327.3R          DIK274.88R 10/23/1996
                        D327.5R          DIK275.00R 10/23/1996
                        R327.5L          REV275.05L 10/23/1996
ARKANSAS RIVER, DARDANELLE D282.3R          DIK229.65R 01/01/1997
                        D283.6R          DIK230.50R 01/01/1997
                        D286.3R          DIK234.00R 01/01/1997
                        R286.8L          REV234.00L 01/01/1997
ARKANSAS RIVER, MORGAN POINT D33.7R          DIK32.70L 01/23/1997
                        D33.8R          DIK32.90L 01/23/1997
                        R34.0L          REV33.50L 01/23/1997
                        R40.2R          REV40.20L 01/23/1997
ARKANSAS RIVER, OZARK      D327.6L          DIK275.15L 01/23/1997
                        D327.7R          DIK275.25R 01/23/1997
                        D327.8L          DIK275.32L 01/23/1997
                        D328.0L          BAF275.49L 01/23/1997
  
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Appendix A: DIKE_CI Reports

List Inspection Team Information

Inspection Team Report

01/27/1997 Page 1

Sorted by: Inspection Date/Ascending
Insp Date: 01/01/1900 to 01/27/1997
Division: Southwestern Division
District: Little Rock

Waterway: ARKANSAS RIVER, MORGAN POINT Inspection Date: 10/22/1995

Quinn T. Tinker, (800) USA-CERL ext 1313
Noel O. Evers, (800) USA-CERL ext 2312
Random F. Chance, (800) USA-CERL ext 7777

Waterway: ARKANSAS RIVER, DARDANELLE Inspection Date: 10/21/1996

Al B. Winken, (800) USA-CERL ext 1234
Bill E. Blinken, (800) USA-CERL ext 2345
Todd D. Nod, (800) USA-CERL ext 4321

Waterway: ARKANSAS RIVER, OZARK Inspection Date: 10/23/1996

Jean L. Picard, (800) USA-CERL ext 1701
James T. Kirk, (800) USA-CERL ext 1701
William T. Ryker, (800) USA-CERL ext 1701

Waterway: ARKANSAS RIVER, DARDANELLE Inspection Date: 01/01/1997

David T. McKay, (800) USA-CERL ext 7375
John M. Elston, (217) 367-3273
Jack P. Clouseau, (800) USA-CERL ext 1111
Call M. Ishmael, (217) 555-1212

Waterway: ARKANSAS RIVER, MORGAN POINT Inspection Date: 01/23/1997

Jack London, (800) USA-CERL ext 1212
Herman Melville, (800) USA-CERL ext 2121
Joseph Conrad, (800) USA-CERL ext 2222

Waterway: ARKANSAS RIVER, OZARK Inspection Date: 01/23/1997

Fox Mulder, (800) 913-4537 ext 13
Dana Scully, (800) 913-4537 ext 21

Appendix A: DIKE_CI Reports

Structure Information Report

Structure Information Report

02/03/1997 Page 1

Sorted by: Structure ID/Ascending
Navigation Mile: 0.00 to 9999.99 Bank: Both
Division: Southwestern Division
District: Little Rock

River/Waterway: ARKANSAS RIVER, MORGAN POINT Reach: MORGAN POINT
Gauge Name: Mile 32.70L Gauge Reading: 9.5
County: State: AR
Levee District: N/A Land Owner: State of Arkansas
Structure ID: D33.7R Last CI: 33 Last RPI: 1
Standard ID: DIK32.70L

Navigation Mile: 32.70 To: (if revetments)
Structure Type: Dike Bank: Left

Purpose: Bank Stabilization Construction: Stone
Overall Design Length: 500 (ft) Average Crown Width: 12 (ft)
Const. Ref. Plane: 131.90 Original Construction Year: 1950

Last Rehab Date: 07/07/1990 Last Inspection Date: 10/22/1995
(mm/dd/yyyy) (mm/dd/yyyy)

River/Waterway: ARKANSAS RIVER, MORGAN POINT Reach: MORGAN POINT
Gauge Name: Mile 32.90 Gauge Reading: 9.75
County: State: AR
Levee District: N/A Land Owner: State of Arkansas
Structure ID: D33.8R Last CI: 45 Last RPI: 2
Standard ID: DIK32.90L

Navigation Mile: 32.90 To: (if revetments)
Structure Type: Dike Bank: Left

Purpose: Bank Stabilization Construction: Stone
Overall Design Length: 500 (ft) Average Crown Width: 12 (ft)
Const. Ref. Plane: 132.10 Original Construction Year: 1950

Last Rehab Date: 07/17/1990 Last Inspection Date: 10/22/1995
(mm/dd/yyyy) (mm/dd/yyyy)

Structure Information Report

02/03/1997 Page 2

Sorted by: Structure ID/Ascending

Navigation Mile: 0.00 to 9999.99 Bank: Both

Division: Southwestern Division

District: Little Rock

River/Waterway: ARKANSAS RIVER, MORGAN POINT Reach: MORGAN POINT

Gauge Name: Mile 33.50 Gauge Reading: 10.0

County: State: AR

Levee District: N/A

Land Owner: State of Arkansas

Structure ID: R34.0L

Last CI: 76 Last RPI: 3

Standard ID: REV33.50L

Navigation Mile: 33.50 To: 32.80 (if revetments)

Structure Type: Revetment Bank: Left

Purpose: Bank Stabilization Construction: Stone

Overall Design Length: 500 (ft) Average Crown Width: 12 (ft)

Const. Ref. Plane: 131.90 Original Construction Year: 1950

Last Rehab Date: 07/20/1990
(mm/dd/yyyy)

Last Inspection Date: 10/22/1995
(mm/dd/yyyy)

River/Waterway: ARKANSAS RIVER, MORGAN POINT Reach: MORGAN POINT

Gauge Name: Mile 40.2L Gauge Reading: 10.25

County: State: AR

Levee District: N/A

Land Owner: State of Arkansas

Structure ID: R40.2R

Last CI: 85 Last RPI: 4

Standard ID: REV40.20L

Navigation Mile: 40.20 To: 40.00 (if revetments)

Structure Type: Revetment Bank: Left

Purpose: Bank Stabilization Construction: Stone

Overall Design Length: 2500 (ft) Average Crown Width: 10 (ft)

Const. Ref. Plane: 135.70 - 132.80 Original Construction Year: 1950

Last Rehab Date: 09/10/1992
(mm/dd/yyyy)

Last Inspection Date: 10/22/1995
(mm/dd/yyyy)

Appendix A: DIKE_CI Reports

Appendix A: DIKE_CI Reports

Inspection Forms w/ Data

DIKE & REVETMENT INSPECTION FORM Inspector: _____
Inspection Date: ____/____/____ (mm/dd/yyyy)

River/Waterway: ARKANSAS RIVER, MORGAN POINT Reach: MORGAN POINT

Structure ID: D33.7R Condition Index: _____ RPI: _____
Standard ID: DIK32.70L Last CI: 33 Last RPI: 1

Navigation Mile: 32.70 To: _____ (if revetments)
Structure Type: Dike Bank: Left

Purpose: Bank Stabilization Construction: Stone
Overall Design Length: 500 (ft) Average Crown Width: 12 (ft)
Const. Ref. Plane: 131.90 - _____ Original Construction Year: 1950

Gauge Name: Mile 32.70L Gauge Reading: 9.5 ft (CRP)

Last Rehab Date: 07/07/1990 Last Inspection Date: 10/22/1995
(mm/dd/yyyy) (mm/dd/yyyy)

____ Dike Exist? ____ Flanked? ____ Bank Connection Description?
____ Loss of Grade? ____ Soundings? ____ Scallops? ____ Downstream Struct?

FIELD COMMENTS:

Inspector: _____

Inspection Date: ____/____/____ (mm/dd/yyyy)

River/Waterway: ARKANSAS RIVER, MORGAN POINT Reach: MORGAN POINT

Structure ID: D33.8R Condition Index: RPI:
Standard ID: DIK32.90L Last CI: 45 Last RPI: 2

Navigation Mile: 32.90 To: _____ (if revetments)
Structure Type: Dike Bank: Left

Purpose: Bank Stabilization	Construction: Stone
Overall Design Length: 500	(ft) Average Crown Width: 12 (ft)
Const. Ref. Plane: 132.10 - _____	Original Construction Year: 1950

Gauge Name: Mile 32.90 Gauge Reading: 9.75 ft (CRP)

Last Rehab Date: 07/17/1990 Last Inspection Date: 10/22/1995
(mm/dd/yyyy) (mm/dd/yyyy)

_____	Dike Exist?	_____	Flanked?	_____	Bank Connection	Description?
_____	Loss of Grade?	_____	Soundings?	_____	Scallops?	Downstream Struct?

FIELD COMMENTS:

DIKE & REVETMENT INSPECTION FORM Inspector: _____
Inspection Date: ____/____/____ (mm/dd/yyyy)

River/Waterway: ARKANSAS RIVER, MORGAN POINT Reach: MORGAN POINT

Structure ID: R34.0L Condition Index: _____ RPI: _____
Standard ID: REV33.50L Last CI: 76 Last RPI: 3

Navigation Mile: 33.50 To: 32.80 (if revetments)
Structure Type: Revetment Bank: Left

Purpose: Bank Stabilization Construction: Stone
Overall Design Length: 500 (ft) Average Crown Width: 12 (ft)
Const. Ref. Plane: 131.90 - _____ Original Construction Year: 1950

Gauge Name: Mile 33.50 Gauge Reading: 10.0 ft (CRP)

Last Rehab Date: 07/20/1990 Last Inspection Date: 10/22/1995
(mm/dd/yyyy) (mm/dd/yyyy)

____ Dike Exist? ____ Flanked? ____ Bank Connection Description?
____ Loss of Grade? ____ Soundings? ____ Scallops? ____ Downstream Struct?

FIELD COMMENTS:

DIKE & REVETMENT INSPECTION FORM

Inspector: _____

Inspection Date: ____/____/____ (mm/dd/yyyy)

River/Waterway: ARKANSAS RIVER, MORGAN POINT Reach: MORGAN POINT

Structure ID: R40.2R Condition Index: _____ RPI: _____
Standard ID: REV40.20L Last CI: 85 Last RPI: 4

Navigation Mile: 40.20 To: 40.00 (if revetments)
Structure Type: Revetment Bank: Left

Purpose: Bank Stabilization Construction: Stone
Overall Design Length: 2500 (ft) Average Crown Width: 10 (ft)
Const. Ref. Plane: 135.70 - 132.80 Original Construction Year: 1950

Gauge Name: Mile 40.2L Gauge Reading: 10.25 ft (CRP)

Last Rehab Date: 09/10/1992 Last Inspection Date: 10/22/1995
(mm/dd/yyyy) (mm/dd/yyyy)

_____ Dike Exist?	_____ Flanked?	_____ Bank Connection Description?
_____ Loss of Grade?	_____ Soundings?	_____ Scallops? _____ Downstream Struct?

FIELD COMMENTS:

Appendix A : DIKE_CI Reports

Appendix A : DIKE_CI Reports

M & R Cost Analysis Report

Maintenance & Repair Cost Analysis Report 02/03/1997 Page 1
 Sorted by: Condition Index/Descending CI: 0 to 100 RPI: 1 to 5
 Insp Date: 01/01/1900 to 02/03/1997 (All Dates in Range)
 Nav. Mile: 0.00 to 9999.99 Bank: Both
 Division: Southwestern Division
 District: Little Rock

River/Waterway	Structure ID	Insp Dt	CI	RPI	Total Cost
ARKANSAS RIVER, DARDANEL	D283.6R	10/1996	80	4	7,400.00
ARKANSAS RIVER, MORGAN P	R40.2R	10/1995	85	4	12,700.00
ARKANSAS RIVER, DARDANEL	D282.3R	01/1997	70	3	18,200.00
	D283.6R	01/1997	75	3	12,500.00
	D286.0L	10/1996	75	3	12,500.00
ARKANSAS RIVER, MORGAN P	R34.0L	10/1995	76	3	13,000.00
ARKANSAS RIVER, DARDANEL	D286.3L	10/1996	77	4	10,200.00
	R286.8L	01/1997	65	2B	31,000.00
	D286.3R	01/1997	50	2A	50,000.00
	D287.2R	10/1996	55	2A	38,000.00
ARKANSAS RIVER, MORGAN P	D33.8R	10/1995	45	2A	47,400.00
	D33.7R	10/1995	33	1	59,400.00
Total Maintenance & Repair Cost:					312,300.00

Appendix A : DIKE_CI Reports

M & R Detailed Data Report

Maintainence & Repair Detailed Cost Data Report 02/03/1997 Page 1
Sorted by: Structure ID/Ascending CI: 0 to 100 RPI: 1 to 5
Insp Date: 01/01/1900 to 02/03/1997 (All Dates in Range)
Nav. Mile: 0.00 to 9999.99 Bank: Both
Division: Southwestern Division
District: Little Rock

River/Waterway: ARKANSAS RIVER, MORGAN POINT
Structure ID: D33.7R Standard ID: DIK32.70L
Inspection Date: 10/22/1995 CI: 33 RPI: 1

MATERIAL/LABOR TYPE	QUANTITY	UNIT(S)	UNIT COST(\$)	TOTAL COST(\$)
Waterborne Fill	150	ton(s)	200.00	30,000.00
Land Borne Fill	0	ton(s)	400.00	0.00
Concrete	20	ton(s)	400.00	8,000.00
Timber Piles	20	dozen	500.00	10,000.00
Earth Moving	120	hour	50.00	6,000.00
Dredging	80	hour	50.00	4,000.00
Bank Rehab	80	hour	10.00	800.00
Skilled Labor	40	hour	15.00	600.00
Misc Labor	0	hour	8.00	0.00
GRAND TOTAL COST(\$):				59,400.00

River/Waterway: ARKANSAS RIVER, MORGAN POINT
Structure ID: D33.8R Standard ID: DIK32.90L
Inspection Date: 10/22/1995 CI: 45 RPI: 2A

MATERIAL/LABOR TYPE	QUANTITY	UNIT(S)	UNIT COST(\$)	TOTAL COST(\$)
Waterborne Fill	80	ton(s)	200.00	16,000.00
Land Borne Fill	20	ton(s)	400.00	8,000.00
Concrete	16	ton(s)	400.00	6,400.00
Timber Piles	16	dozen	500.00	8,000.00
Earth Moving	80	hour	50.00	4,000.00
Dredging	80	hour	50.00	4,000.00
Bank Rehab	40	hour	10.00	400.00
Skilled Labor	40	hour	15.00	600.00
Misc Labor	0	hour	8.00	0.00
GRAND TOTAL COST(\$):				47,400.00

Maintenance & Repair Detailed Cost Data Report 02/03/1997 Page 2
 Sorted by: Structure ID/Ascending CI: 0 to 100 RPI: 1 to 5
 Insp Date: 01/01/1900 to 02/03/1997 (All Dates in Range)
 Nav. Mile: 0.00 to 9999.99 Bank: Both
 Division: Southwestern Division
 District: Little Rock

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River/Waterway: ARKANSAS RIVER, MORGAN POINT
 Structure ID: R34.0L Standard ID: REV33.50L
 Inspection Date: 10/22/1995 CI: 76 RPI: 3

MATERIAL/LABOR TYPE	QUANTITY	UNIT(S)	UNIT COST(\$)	TOTAL COST(\$)
Waterborne Fill	20	ton(s)	200.00	4,000.00
Land Borne Fill	0	ton(s)	400.00	0.00
Concrete	10	ton(s)	400.00	4,000.00
Timber Piles	5	dozen	500.00	2,500.00
Earth Moving	20	hour	50.00	1,000.00
Dredging	20	hour	50.00	1,000.00
Bank Rehab	20	hour	10.00	200.00
Skilled Labor	20	hour	15.00	300.00
Misc Labor	0	hour	8.00	0.00
GRAND TOTAL COST(\$):				13,000.00

River/Waterway: ARKANSAS RIVER, MORGAN POINT
 Structure ID: R40.2R Standard ID: REV40.20L
 Inspection Date: 10/22/1995 CI: 85 RPI: 4

MATERIAL/LABOR TYPE	QUANTITY	UNIT(S)	UNIT COST(\$)	TOTAL COST(\$)
Waterborne Fill	20	ton(s)	200.00	4,000.00
Land Borne Fill	0	ton(s)	400.00	0.00
Concrete	10	ton(s)	400.00	4,000.00
Timber Piles	5	dozen	500.00	2,500.00
Earth Moving	20	hour	50.00	1,000.00
Dredging	20	hour	50.00	1,000.00
Bank Rehab	20	hour	10.00	200.00
Skilled Labor	0	hour	15.00	0.00
Misc Labor	0	hour	8.00	0.00
GRAND TOTAL COST(\$):				12,700.00

Appendix B : Forms

Appendix B : Forms

Condition Index Calculation Information

Dike Condition Rating - CI Calculation

DOES DIKE EXIST? yes no CI[Exist] = 100, 0 (eq. a)

IS DIKE FLANKED? yes no CI[Flanking] = 9,100 (eq. b)

LOSS OF GRADE (lg)

No loss of grade		CI[lg] = 100
0 ft ■ LG ■ 1 ft	over any distance	CI[lg] = 75
1 ft ■ LG ■ 2 ft	over a distance ■ 100ft	CI[lg] = 69
	over a distance ■ 100ft	CI[lg] = 55
2ft ■ LG ■ 4 ft	over a distance ■ 100ft	CI[lg] = 40
	over a distance ■ 100ft	CI[lg] = 39
4 ft ■ LG ■ 6 ft	over a distance ■ 100ft	CI[lg] = 24
	over a distance ■ 100ft	CI[lg] = 10
LG ■ 6 ft	over any distance or for any "hole"	CI[lg] = 9

If the damage begins closer than 200ft from the bank, or if the damage occurs in a chute closure, deduct 15 more points; but the minimum CI[lg] shall remain CI[lg] = 09. If the dike is less than 200ft long, or is a vane (L-Head) do not subtract any additional points, the CI[lg] numbers remain as shown above.

$$CI[LossGrade] = MIN(CI[lg]) \quad (eq. c)$$

Bank Erosion

Scallop of any size begins at downstream edge of dike and extends downstream.

$$CI[BankErosion] = 15$$

Scallops upstream and downstream of dike. Dike connected or covered with narrow earth plug.

Plug wider than dike crown	CI[BankErosion] = 39
Plug narrower than dike crown	CI[BankErosion] = 20

Scallop begins less than 20ft downstream of dike.

Scallop less than 50ft long x 20 ft deep	CI[BankErosion] = 36
Scallop 50 ft - 100 ft long x 20 ft - 50 ft deep	CI[BankErosion] = 30
Scallop greater than 100ft long x 50 ft deep	CI[BankErosion] = 24

Scallop begins 20ft to 40ft downstream of dike.

Scallop less than 50ft long x 20 ft deep	CI[BankErosion] = 39
Scallop 50 ft - 100 ft long x 20 ft - 50 ft deep	CI[BankErosion] = 32
Scallop greater than 100ft long x 50 ft deep	CI[BankErosion] = 26

Scallop begins 40ft to 75ft downstream of dike.

Scallop less than 50ft long x 20 ft deep	CI[BankErosion] = 50
Scallop 50 ft - 100 ft long x 20 ft - 50 ft deep	CI[BankErosion] = 43
Scallop greater than 100ft long x 50 ft deep	CI[BankErosion] = 39

Scallop begins more than 75ft downstream of dike.

Scallop less than 50ft long x 20 ft deep	CI[BankErosion] = 70
Scallop 50 ft - 100 ft long x 20 ft - 50 ft deep	CI[BankErosion] = 64
Scallop greater than 100ft long x 50 ft deep	CI[BankErosion] = 54

(eq. d)

NET CI = MINIMUM(eq.a, eq.b, eq.c, eq.d) = _____

Revetment Condition Rating - CI Calculation

Damage to Trenchfill, Mattress, or Dumped Stone Revetment

Bare bank in revetment due to erosion or propwash.

Cumulative length greater than 400 ft	CI[Revet] = 0
Cumulative length 100 ft - 400 ft	CI[Revet] = 9
Cumulative length 10 ft - 400 ft	CI[Revet] = 24
Cumulative length 5 ft - 10 ft	CI[Revet] = 39

Break in stone slope, nearly over launched condition, indicating little protection stone is left.

Cumulative length greater than 100 ft	CI[Revet] = 9
Cumulative length equal to or less than 100 ft	CI[Revet] = 24

Small areas launched more than adjacent revetment, revetment generally in good condition (note: no bare bank).

Cumulative length greater than 50 ft	CI[Revet] = 69
Cumulative length equal to or less than 50 ft	CI[Revet] = 70

Scallops upstream or downstream of revetment.

Any scallop greater than 50ft deep	CI[Revet] = 9
Any scallop greater than 100ft long	CI[Revet] = 9
Scallop 51ft - 100ft length	CI[Revet] = 24
Scallop 20ft - 50ft length	CI[Revet] = 39
No scallop but visible erosion in bankline	CI[Revet] = 69

Revetment CI = MIN(CI[Revet]) _____

Note:

Revetment structures can be miles long and be of various manner of construction. It is left to the judgment and discretion of the Districts to, if so desired, break a revetment up into smaller management sections according to construction type, material, physical location, etc.

Appendix B - Forms

Appendix B - Forms

Repair Priority Index (RPI) Information

Repair Priority Index (RPI)

RPI Definitions:

- 1 - Structures receiving an RPI of "1" should be repaired. Allowing structure to remain in current condition will (has) cause(d) loss of a safe and dependable navigation channel; jeopardize the integrity of surrounding dikes and revetment; will cause loss of bank or damage to adjacent property.
- 2A - Structures receiving an RPI of "2A" should be repaired after structures receiving an RPI of "1" have been tended to. If such structures are not repaired, loss of a safe and dependable navigation channel is not imminent, but the integrity of the bank, neighboring structures, or environmental habitat is threatened. Structures receiving an RPI of "2A" may also have a history of consistently failing during events such as high water, floods, ice damage, tow impacts, accidents or other causes. Further, a "2A" rating may also imply that there are no neighboring dikes and revetment to maintain a safe and dependable navigation channel if this structure fails.
- 2B - Structures receiving an RPI of "2B" should be repaired after structures receiving an RPI of "2A" have been tended to. If such structures are not repaired, loss of a safe and dependable navigation channel is not imminent, but the integrity of the bank or neighboring dikes and revetment are threatened. These structures should be further prioritized for repair according to their REMR Condition Index.
- 3 - Structures receiving an RPI of "3" should be repaired after structures receiving an RPI of "2B" have been tended to. If such structures are not repaired, loss of a safe and dependable navigation channel is not imminent, nor are the integrity of the bank or neighboring dikes and revetment immediately threatened. But neglecting these structures will allow continuous deterioration.
- 4 - Structures receiving an RPI of "4" have been deemed not in need of repair at the time of their last inspection.
- 5 - Structures showing an RPI of "5" have never been assigned an RPI. The presence or lack of conditions or circumstances such as those discussed above cannot be assumed for such structures.

Appendix B - Forms

Blank Inspection Form

DIKE & REVETMENT INSPECTION FORM

Inspector: _____

Inspection Date: ____/____/____ (mm/dd/yyyy)

River/Waterway: _____ Pool: _____

Structure ID: _____ Condition Index: _____ RPI: _____

Standard ID: _____ Last CI: _____ Last RPI: _____

Navigation Mile: _____ To: _____ (if revetments)

Structure Type: _____ Bank: _____ (R/L/B)

(Dike, Revetment, L-Head, Baffle, Weir, Wing Dam, Other)

Purpose: _____

(Bank Stab, Closure, CutOff, Kicker, Training, Vane, Other)

Construction: _____

(Stone, Stone & Timber Pile, Timber Pile, Concrete Pile, Stone Fill,

Dumped Stone, Pile Revet/Stone Fill, Matress Revet, Trench Fill, Hybrid)

Overall Design Length: _____ (ft) Average Crown Width: _____ (ft)

Construction Reference Plane: _____ Original Construction Year: _____

Water Surface Elevation: _____ (ft)

Last Rehab Date: ____/____/____
(mm/dd/yyyy)Last Inspection Date: ____/____/____
(mm/dd/yyyy)

_____ Dike Exist?	_____ Flanked?	_____ Bank Connection Description?
_____ Loss of Grade?	_____ Soundings?	_____ Scallops? _____ Downstream Struct?

=====

FIELD COMMENTS:

Appendix C

Dike and Revetment Nomenclature and Configurations

- Dike** A stone or pile (or stone-pile) structure that is most often connected to the riverbank and built generally perpendicular to the flow in the channel. The dike promotes higher flow velocity at the riverward end, and slower water velocities at the bank end, thus promoting better sediment transport in the channel as well as accretion near the bank. Often called a training dike or spur dike, it is used for both channel improvement and bank stabilization. Sometimes dikes are notched to enhance environmental aspects downstream of the dike. (Note - Dike nomenclature varies across some districts, eg., a spur dike is the same as a training dike in many Districts, however in other districts a spur and a kicker dike carry the same meaning.)
- Revetment** A structure that is generally built into or close to the river bank and generally runs generally parallel to the flow of the river. It can be of varying construction but is generally made of placed stone, rip rap, timber pile with stone fill. A revetment's primary function is bank stabilization.
- L-Head** A training dike with a perpendicular dike structure attached at the channel end creating an L shape. The attached dike structure is usually lower in elevation (e.g. 1-5 feet). The purpose of this structure is to control scour patterns at the training dike's riverward end for channel improvement.
- Baffle Dike** A dike built behind (bankward) and perpendicular to an extended-revetment or other dike structure whose alignment is roughly parallel with the channel flow. The baffle dike can lend structural support to the revetment-dike, as well as protect the bank if high water tops the revetment-dike. The baffle dike is usually connected to the bank and perpendicular to the revetment-dike. A baffle dike is used primarily for bank stabilization.
- Bendway Weir** A weir placed in an outward river bend, usually attached to the bank, angled upstream (roughly 30 degrees relative to the flow's perpendicular). This structure is used for channel improvement, but also pulls water away from bank, promoting bank stability.
- Bullnose** A U-curved dike structure which is built on the upstream end of an eroding

island. The horseshoe shape of the bullnose is used to keep the downstream island banks from eroding. The horseshoe fits over the upstream end of the island and is connected to it on either side.

Chevron Similar to the U-shape of a bullnose, a chevron is built away from an island, generally in the side channel created by an island. Chevrons divert water to the main channel and also roughen the water for environmental purposes in the side channel. A chevron dike provides both channel improvement, and environmental benefits.

Closure Sometimes called a chute closure, a dike structure reaching from the edge of an island to the edge of the river bank. A closure is used to divert water back into the main channel for channel improvement.

Hard Point A short perpendicular dike which is often used in groups. Hard points are placed along the landward bank of a chute or slough. Hard point is used for bank stability, and to promote environmental quality.

Kicker A dike structure that is often the extension of a revetment where the bank tails away from the main channel. It is placed generally parallel to the channel. During normal flow a kicker guides water back towards the main channel. During high flow, if a kicker is topped, negative effects on the adjacent bank can be suffered. (Note: a baffle dike is often used to counter these effects.) A kicker is used for channel improvement and bank stabilization.

Spur Dike Most often meant to mean a training dike, sometimes referred to as a kicker dike.

MRS MRS, stands for Multiple Roundpoint Structures. Rather than placing a single continuous training dike, regularly interspersed mounds of stone are placed to act as a permeable stone training dike. A group of MRS is used to improve the channel and roughen the water for environmental effects. Typical dimensions for St. Louis District MRS are:

Diameter: about 40 feet

Distance between the perimeters: about 50 feet

Structures per group: 5-10

Off Bankline

Revetment A dike-like structure that is built off the bankline, but generally closer to the bank than vane dikes. An off-bank structure is parallel to both the bank and the flow. It is generally used for bank stabilization, and to maintain environmental quality. This structure is usually built in groups and may be thought of as an L-Head without the training dike.

Toe Dike A dike usually built along the toe line of a revetment (parallel to flow) but is also

used to "close in" a severe scallop or other damage caused by bank erosion. This structure is used for bank stabilization by preventing downstream scour of the bank or revetment.

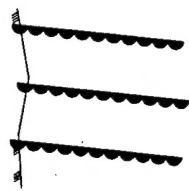
Training

Dike See "Dike"

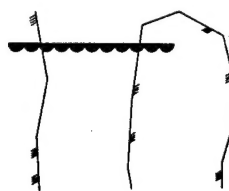
Vane Dike A dike structure which is detached from the channel bank, and is either parallel to the flow or at a slight angle to the flow. It is associated more with the channel than the bank (as would be the case in an off-line bank revetment). This structure is used for channel improvement.

Weir A weir is an underwater dike but usually larger than a dike. Sometimes called an underwater dam. This structure is used for channel improvement.

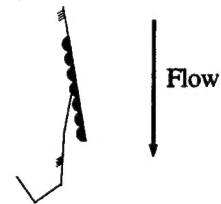
Wing-Dam A wing-dam is a submerged training dike used for channel improvement.



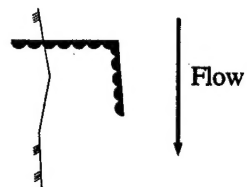
Training or Spur Dikes,
Wingdams



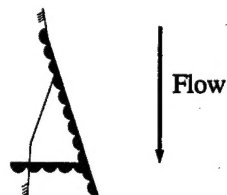
Chute Closure



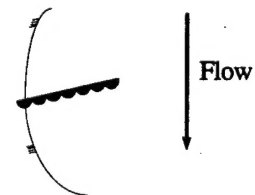
Kicker or Spur Dike,
Extended Revetment



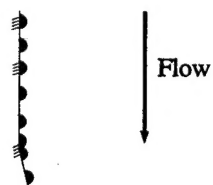
L-Head Dike, or Spur
with L-Head dike



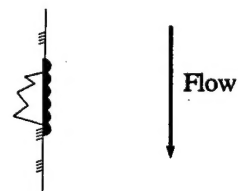
Extended Revetment or
Kicker with Baffle



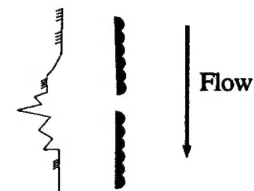
Bendway Weir



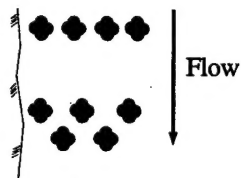
Hardpoints



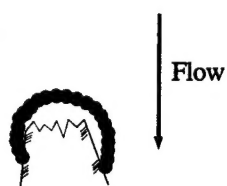
Toe Dike or Windrow



Off Bank Line
Revetment



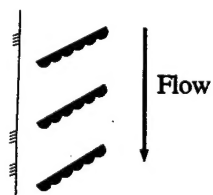
Multiple Round Point



Bull Nose



Chevron Dikes



Vane Dikes

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13. ABSTRACT (Maximum 200 words) This is the user guide for the initial version of DIKE_CI, the REMR (Repair, Evaluation, Maintenance, and Rehabilitation) management system computer program for riverine navigation training structures. It was developed as part of the REMR research program. This DOS-based version handles basic structural information, inspection information (including estimated Condition Index [CI] value), and report generation for stone dikes and revetments. The program is menu-driven. Data can be copied to and from other disk drives. The quantitative description, or CI, is incorporated into a REMR Management System for stone navigation training dikes and revetment. The CI is obtained from an algorithm that uses field inspection data as input and is designed so that it provides consistent, repeatable, uniform results. The fundamental goals of the REMR Management System are to establish Corps-wide inspection uniformity and common definitions of condition so that more effective communications concerning condition can be made. REMR Management Systems use uniform condition inspection techniques that emphasize visual, inexpensive, and efficient methods of data gathering.					
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